



Predictors of stress in two-generation farm families in Montana
by David Holloway

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science in
Home Economics

Montana State University

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Abstract:

Agricultural income is one of the major sources of income in Montana. In recent years Montana's farmers and ranchers have suffered the effects of unstable economic conditions. Many farms/ranches have failed. The current rate of failure of family owned farm/ranch operations is of concern and needs to be examined in order to understand the nature and dynamics of these families. This study examined stress for fathers, mothers, sons, and daughters-in-law who live and work on the same farm/ranch operation. Four independent variables of marital cohesion, length of time married, income satisfaction, and number of household dependents were examined for each family member to determine the degree to which each variable predicts stress as a result of living and working on the farm/ranch as a two-generation operation. Multiple regression analyses were employed for each family member to measure marital cohesion, length of time married, income satisfaction, and number of household dependents as predictors of two-generation farm family stress. The results were significant for fathers with the variables of marital cohesion, length of time married, and income satisfaction significantly contributing to stress. The model was not significant for mothers; however, the variable of income satisfaction was significantly related to stress for mothers. The model was not significant for sons or daughters-in-law even though they reported higher stress levels than fathers or mothers. The results suggest that more research is needed in order to develop a solid foundation and a basis for understanding these families. Those involved in intervention with these families must have a working knowledge of family systems as it applies to two-generation farm families.

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MONTANA STATE UNIVERSITY
Bozeman, Montana

May, 1987

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ACKNOWLEDGEMENTS

I would like to express my gratitude and appreciation to the many people who supported me and encouraged me during my work on this thesis. I would especially like to express my gratitude to my wife, Anita, and my children, Jason, Brandon, Casondra, Travis, and Chelsi. Without their patience, support, and encouragement this thesis would not have been possible. I love you all.

I also wish to acknowledge my classmates Carwin Dover, Debbie Fultz, Rochelle Beley, Debbie O'Brien who were not only friends, but a source of strength and encouragement. I grew a great deal and am a more complete person as a result of my interaction with them.

I want to acknowledge the guidance, encouragement, advice and expertise of my committee chairperson, Dr. Stephan Wilson. His research knowledge and understanding of the research process were invaluable in my work. His friendship is also greatly appreciated.

My thanks also go out to Dr. Jeffery Larson, Dr. Ramona Marotz-Baden, and Dr. Wayne Larson for their assistance and support. The aid of understanding professors is a welcome relief for many graduate students. Thank you for your understanding assistance.

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ABSTRACT

Agricultural income is one of the major sources of income in Montana. In recent years Montana's farmers and ranchers have suffered the effects of unstable economic conditions. Many farms/ranches have failed. The current rate of failure of family owned farm/ranch operations is of concern and needs to be examined in order to understand the nature and dynamics of these families. This study examined stress for fathers, mothers, sons, and daughters-in-law who live and work on the same farm/ranch operation. Four independent variables of marital cohesion, length of time married, income satisfaction, and number of household dependents were examined for each family member to determine the degree to which each variable predicts stress as a result of living and working on the farm/ranch as a two-generation operation. Multiple regression analyses were employed for each family member to measure marital cohesion, length of time married, income satisfaction, and number of household dependents as predictors of two-generation farm family stress. The results were significant for fathers with the variables of marital cohesion, length of time married, and income satisfaction significantly contributing to stress. The model was not significant for mothers; however, the variable of income satisfaction was significantly related to stress for mothers. The model was not significant for sons or daughters-in-law even though they reported higher stress levels than fathers or mothers. The results suggest that more research is needed in order to develop a solid foundation and a basis for understanding these families. Those involved in intervention with these families must have a working knowledge of family systems as it applies to two-generation farm families.

CHAPTER 1

ORIENTATION TO THE STUDY

Ninety percent of all businesses in the United States are family owned (Rosenblatt, 1985). In many of these family owned businesses the parents will pass the assets and responsibility of the business on to one or more of their children (Bratton & Berkowitz, 1976; Hedlund & Berkowitz, 1979). Farm and ranch operations are no exception to this pattern of family business transfer across generations. Children who wish to remain in farming rely heavily on parental assistance (Weigel, Blundall & Weigel, 1984).

The decline in the number of family owned and operated farms has been astonishing. Wilkening (1981, p.28) noted that from "a peak of 6.8 million farms in 1935, the number has declined to 2.7 million in 1977." Many agricultural economists predict that the number of family farm/ranch operations will continue to decline in the future (Gardner, 1982). It is not uncommon for family farm/ranch operations to fail when in the process of transferring the assets and responsibilities of the operation on to the next generation (Marotz-Baden & Cowan, 1987).

The process leading to the eventual transfer of the farm/ranch operation involves changes in family roles and expectations as authority and ownership change (Hedlund & Berkowitz, 1979). Changing roles and shifting authority may lead to unstable and unpredictable family life and work environments. This is likely to be stressful for all family members (George, 1980; McCubbin & Patterson, 1983). If the stress levels reach the point at which family members no longer have the resources to manage, then the family will be in a crisis situation (McCubbin & Patterson, 1983). Due to the nature of living and working arrangements, two-generation farm/ranch families appear to be vulnerable to the uncertainties and instabilities which result in stress.

Two-generation farm/ranch families often live in close proximity, share a common economic unit, and work closely together (Beavers, 1977; Weigel, Blundall, & Weigel, 1986). The decisions, resources, and consequences needed to manage when families live and work closely together require responsiveness of both households and cooperation not only as a family unit but, also, as business colleagues. Often close kinship networks develop as a result of sharing family and business responsibilities.

Although close kinship networks and proximity contribute to the efficiency of the farm/ranch operation, many two-generation farm/ranch families experience stress

and conflict as a result of living and working closely together (Beavers, 1977; Trachta, Weigel, & Abbott, 1984; Weigel et al., 1986). A clear understanding of roles, rules boundaries, and responsibilities between the two generations of farm/ranch families may provide the structure and stability which allows for successful operation of the two-generation farm or ranch.

In order to establish a strong nuclear family unit, cohesion and integration must develop within the nuclear family system. Such cohesion serves to maintain the boundary between the nuclear family and the extended family system (Boss, 1983; Bowen, 1978; Hess & Handel, 1959; Kantor & Lehr, 1976; Minuchin, 1967). Satisfying marital relationships emerge as couples realign loyalties so that their emerging family takes priority over their respective families of origin (Bowen, 1978; Minuchin, 1974). Spouses who are able to establish themselves as a new and independent family, demonstrate that they can manage on their own, and take on the roles and tasks necessary to manage their own family demonstrate a realignment of family loyalties from families of origin to their newly emerging family. Cross generational boundary ambiguities must be resolved before a couple is capable of establishing a co-executive relationship required to manage the responsibilities and tasks of a separate family (Boss, 1983; Bowen, 1978).

The close kinship networks, proximity, and shared economic base required to effectively manage and maintain two-generation farm/ranch operations appear to conflict with the younger couples' need to realign loyalties and establish boundaries that define the new family as an independent family unit. Two-generation farm/ranch families may provide insight into the complex balance of establishing and maintaining separate home and family lives while working closely with one spouse's parents in order to effectively operate the farm/ranch.

Statement of the Problem

This study utilized the double ABCX model of family stress and crisis to help explain how stress in two-generation farm/ranch families develops and how crisis may occur (Marotz-Baden & Colvin, 1986; McCubbin & Patterson, 1983). This study attempted to examine the extent and nature of stress present when families live and work closely together by using the double ABCX model of stress and crisis as a theoretical framework.

Specifically, the purpose of this study was to examine the effects of several variables related to personal and family functioning and the perceived level of stress among two-generation farm/ranch families in Montana. The independent variables of marital cohesion, length of time married, income satisfaction, and the number of

household dependents were examined in relation to stress experienced in two-generation farm families. The effects of these variables on perceived stress was examined for each family member.

Rationale

The decline in the number of family owned and operated farm/ranch operations has been astounding (Coward & Jackson, 1983; Wilkening, 1981). Large crop supplies, low commodity prices, high interest rates, and declining agriculture land values are seriously straining people involved with agriculture (Pratt & Lies, 1982). Montana is one of the most rural states in the nation and agribusiness is the largest income generator in the state (Pratt & Lies, 1982). Continuation of successful farming is critical to the well being of families and industry throughout Montana. Our ability to help farm/ranch families depends, to a large extent, on our knowledge of what is stressful to these families and what is useful in the management of stress.

Little of the research on the farm family has utilized a theoretical framework. A theory provides a foundation for practitioners as well as researchers. It provides organization of variables and their relationships. It permits for the logical extension of variables and allows the formation of propositions. A theoretical framework may provide the organization and logic necessary to understand

the process of successfully living and working closely together as an extended family system. A theoretical framework should be useful for applied professionals such as lawyers, accountants, extension agents, estate planners, and counselors who assist families with stress related problems. Without such a framework, professionals who work with farm/ranch families are left to only guess at what techniques might be effective. It is important, therefore, to examine and test theoretical models in order to determine which models best explain the stress and coping mechanisms related to farm/ranch families.

Another factor influencing two-generation farm/ranch success or failure is agreement and coordination of management procedures between the two generations (Prokesh, 1986). Farm/ranch operations require good management procedures and positive interpersonal relations among the family members involved. Ineffective stress management in interpersonal relationships often contribute to conflict which is likely to negatively affect farm/ranch management procedures (Prokesh, 1986). Ineffective or inefficient management procedures are likely to affect farm/ranch income which, in turn, may lead to further family stress and the eventual failure of the farm/ranch operation.

Recommendations for effective stress management skills for two-generation farm/ranch families are limited by the lack of research on the internal dynamics of these families

(Coward & Smith, 1982; Urey & Henggeler, 1983; Weigel, et al., 1986; Weigel, Weigel, & Blundall, 1987). An understanding of the interpersonal dynamics of two-generation farm/ranch families is needed before effective management procedures can be implemented (Urey & Henggeler, 1983; Weigel et al., 1987). Insight into the internal dynamics of farm/ranch families may provide information which can be used to avoid the ineffective management procedures leading to failure of farm/ranch operations.

Another issue having implications for successful farm/ranch management is the influence of extended family members on stress management. Separating from one's family of origin in order to form a cohesive marital and family unit has been the central theme of many researchers (Duvall, 1954; Hess & Handel, 1959; Kantor & Lehr, 1976; Minuchin, 1967). These researchers suggest that a couple must draw boundaries that separate themselves from both of their families of origin. Failure to do so leads to confusion in the family system which may result in ineffective management of stress and conflict. However it may also be possible that extended family networks are not always a source of conflict. In many cases, the extended family provides a social support network, offering material support, emotional support, esteem support, and network support to families members in stress (Granovetter, 1973; McCubbin & Patterson, 1983).

The interpersonal dynamics inherent in working and living closely together may be a source of stress or they may be viewed as a resource from which individuals and families draw mutual support in order to adapt to stressor events. How an individual or family views close kinship networks may provide information on the management procedures successful two-generation farm/ranch families employ.

Conceptual Framework

Stress

McCubbin and Patterson (1981, p. 7) define stress "as a demand-capacity imbalance in the family's functioning characterized by a non-specific demand for adaptive behavior." In other words, the family is experiencing stress because of its current inability to adapt to a stressor (Marotz-Baden & Colvin, 1986).

Stressors can be classified as normative or non-normative events. Normative events are those associated with normal life transitions that are fairly predictable such as birth, adolescence, marriage, death, and so forth (McCubbin & Patterson, 1983). Pearlin and Schooler (1978) have identified at least 13 normative events that occur over the life cycle that are related to marriage, occupation, and parenthood. Non-normative events are those associated with accidents, crises, and catastrophic events

which generally can neither be anticipated nor expected. Non-normative stressors disrupt the fairly predictable events of life.

The double ABCX model of stress and crisis (McCubbin and Patterson, 1981) suggests that the family is likely to be dealing with accumulative stress or a "pile up" of stressor events rather than a single stressor (see Figure 1). According to the double ABCX model three types of stressors contribute to a "pile up" of stressors in the family system. The first is the initial stressor event, typically some sort of non-normative event, which may move the family into a crisis state. The second type consists of normative life changes such as marriage, birth of a child, or occupational changes. These events require family members to change their behaviors in order to adapt to the demands of the normative events. The third type of stress is associated with the family's efforts to cope with the hardships of the situation. Thus, certain coping behaviors such as avoidance or denial may actually contribute to the accumulation or "pile up" of stressors.

Stressors impact everyone and require the utilization of both internal and external resources in order to cope successfully (McCubbin, 1979). Internal resources are defined as the use of resources by family members such as integration and adaptability within their nuclear family. Integration refers to the bonds of cohesion and unity

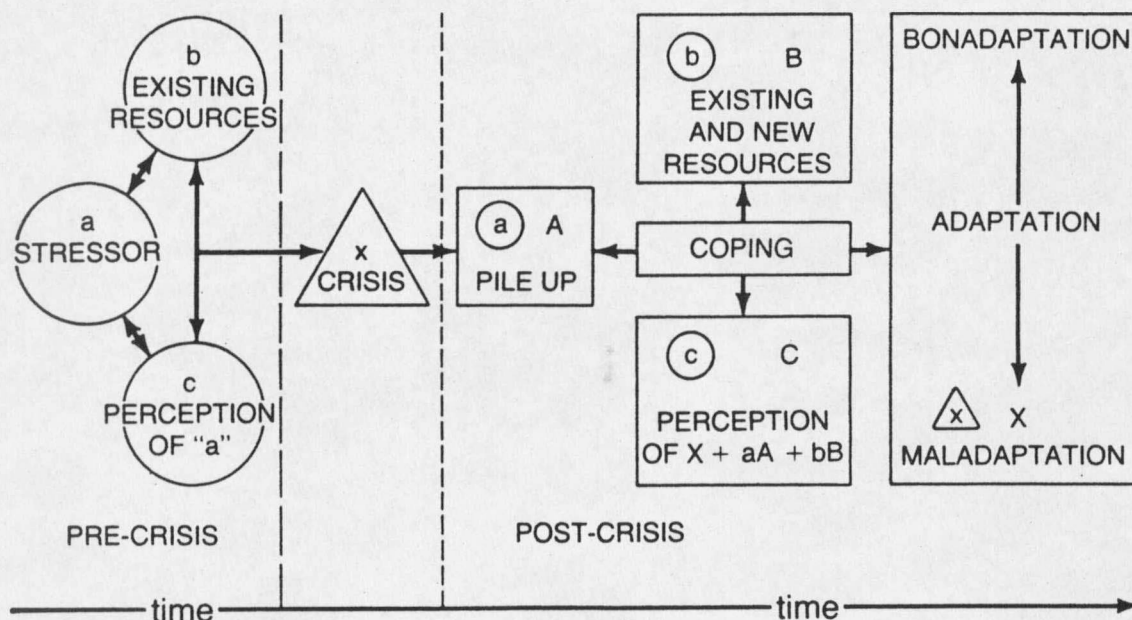


Figure 1. The Double ABCX Model of Stress and Crisis.

running through the marital and family system, of which common interests, affection, and a sense of economic interdependence are perhaps the most prominent (McCubbin & Patterson, 1983). Additional resources include family agreement about its role structure, subordination of personal ambitions to meet family goals, satisfaction within the family as a result of meeting the physical and emotional needs of its members, and working collectively toward common family goals (Galvin & Brommel, 1986; McCubbin & Patterson, 1983). Individual coping mechanisms will be impacted by the developmental stage of the individual and the family. Individuals at various stages of individual and family development will also perceive stress differently.

Developmental Stages

Duvall (1977) describes eight stages of family development. The progress of the first born child is used to distinguish each stage during the years when children are being produced and raised to maturity. Rollins and Feldman (1970) report a curvilinear relationship between marital satisfaction and the stages of the family life cycle. Newly married couples report high levels of satisfaction in their marriages. As the oldest child moves through the successive stages of toddlerhood, preschool, school-age, and adolescence, the level of marital satisfaction for the marital couple in the family decreases. Marital satisfaction reaches its lowest point when the oldest child is school-aged. As the children begin to leave the home, the level of marital satisfaction increases to approximately the same level as before the children were born.

The older generation of two-generation farm/ranch families are more likely to be in the latter stages of development in the life cycle when marital satisfaction is on the increase. The younger generation is more likely to be in the early or middle stages of development in the life cycle when children are at home and when marital satisfaction is at its lowest (Marotz-Baden, in press; Weigel et al., 1987).

Families in two-generation farm/ranch operations who live and work in close proximity face the challenge of establishing separate family identities (Bowen, 1978; Urey & Henggler, 1983). The primary effect of adolescence and early adulthood development is to establish a sense of separateness from one's family preparatory to entering into an intimate marital relationship (Erikson, 1968). According to Erikson's (1968) developmental stages, an adolescent is faced with the crisis of either defining his/her self outside of the family of origin or facing a continual battle of identity confusion. Until a sense of separateness is established, an individual is not ready to function in an intimate relationship such as marriage.

The individual who is unable to resolve his/her emotional attachment to his/her family of origin may carry these issues into his/her marital relationship. Often when problems arise in the marriage, one spouse may turn to one of his/her parents in a destructive process of triangulation (Bowen, 1978). Triangulation is a sign of being over attached or enmeshed with one's family of origin (Minuchin, 1974). One goal for two-generation farm/ranch families is to be able to effectively develop permeable boundaries across generations that foster the couple's autonomy while maintaining an effective working relationship with close family members.

Nominal Definitions

Concepts specific to this study are marital cohesion, two-generation stress, family boundaries, autonomy, adaptation, crisis, and coping. Definitions of these terms for the purpose of this study are as follows:

Two-generation Stress

Two-generation stress refers to the individual's perception of stress related to living around and operating two-generation farms/ranches. Stressors include intergenerational relationship ambiguities, personal involvement with the farm/ranch, financial difficulties, task management, and the interpersonal difficulties inherent when families live and work closely with extended family members (Marotz-Baden, 1986; Marotz-Baden & Colvin, 1986; Weigel et al., 1987).

Marital Cohesion

Marital cohesion refers to the emotional bonding marital partners have with one another in their own family system (Olson, Russell, & Sprenkle, 1983). Specifically, marital cohesion reflects the degree of unity between marital partners. Marital cohesion includes high levels of agreement, ease in decision making between partners, compatible interests, shared leisure time, and shared emotional experiences.

Family Boundaries

Family boundaries are the mechanisms which define who and what are a part of the nuclear family unit. Boundaries define the rules and guidelines that regulate what goes into and what comes out of the family system. The regulation of information into and out of the family system is a function of family boundaries. Boundaries clarify who is performing what roles and tasks inside the family, and who is perceived by the family members, and especially the executive pair as being present and part of the nuclear family system (Boss, 1983).

Autonomy

Autonomy refers to the boundary around the person that separates the person from his/her family of origin. An autonomous individual has a psychological as well as a physical sense of personal separateness from his/her family of origin. An autonomous individual will be able to function independently from other family members (Beavers & Voeller, 1983). A well-differentiated individual is flexible and can respond to situations based on a personal framework rather than the family's framework (Bowen, 1978). This study refers to autonomy as it relates to a married couple's separation and individuality from either spouse's family of origin.

Adaptability

Adaptability refers to the ability of a marital, or family system to change its power structure, role relationships, and relationship rules in order to respond to normative and non-normative stressors (Olson & McCubbin, 1983). Adaptability is highly dependent on the ability of the marital and family system to change or alter its present structural definitions and current level of functioning in order to cope within the context of the problem (Olson, Russell, & Sprenkle, 1983).

Crisis

Crisis results from the family's inability to change or adapt family roles, rules, or power structures in order to restore stability within the family system. Stressor events place the family under constant pressure to change the structure of the family system and the family's patterns of interaction in order to reduce the levels of stress experienced by family members. If each family member is unable to redefine the situation and use existing resources in order to change the family system, a state of crisis may result (McCubbin & Patterson, 1983).

Coping

Coping refers to the central mechanism or set of mechanisms which individuals and families use in order to adapt, reduce, or eliminate stressors, demands, and

strains in the family system (Galvin & Brommel, 1986). In order to cope with stress a family may avoid, ignore, or deny the stressor and other demands in the hopes that they will go away or resolve themselves. Family members may also employ active efforts to eliminate or rid the family of the stressor and its demands by altering the definition of the stressor or by removing the stressor. A third coping mechanism involves the family's attempts to assimilate or adjust to the stressor and its demands by accepting the stressor into the family's existing patterns of interaction (McCubbin & Patterson, 1983).

Objectives

The major objective of this study was to examine variables related to home and family life which may help to explain stress for members of two-generation farm/ranch families. This study was concerned with the degree to which perceptions of stress are affected by marital cohesion, length of time married, income satisfaction, and the number of household dependents in Montana's two-generation farm/ranch families. Differences in the perceptions of stress as a factor of gender and generation were studied. More specifically, this study had seven objectives. These are:

1. To examine two-generation farm family stress in the framework of the double ABCX model of family stress and crisis.
2. To examine the differences in the levels of stress experienced by each family member in the two-generation farm/ranch operation.
3. To examine the degree to which marital cohesion accounts for variation in stress levels for each member of the two-generation farm/ranch family.
4. To examine the effects for each family member of the length of the current marital relationship on stress resulting from two-generation farm/ranch operation.
5. To examine the relationship between income satisfaction and two-generation farm family stress for each member of the two-generation farm/ranch family.
6. To examine the relationship between the number of household dependents and stress resulting from living and working in the two-generation farm/ranch operation for each member of the two-generation farm/ranch family.
7. To control for the effects of gender and generation on perceptions of stress in two-generation farm/ranch families by separating family members by their position in the family (i.e., fathers, mothers, sons, and daughters-in-law).

CHAPTER 2

LITERATURE REVIEW

This chapter contains a review of those areas of the literature that are pertinent to the present study. Traditional ways of viewing stress are examined. Specific areas of two-generation farm family stress are explored along with details of the Farm Family Stress scale. Literature relevant to the hypotheses are reviewed and the hypotheses for the study are presented.

Stress

Stress has become a popular topic in the professional and popular literature in the last decade. The foundation for stress related research was laid by Reuben Hill. Hill (1949) studied stress in families and noted four types of family disruptions that cause crisis. These disruptions include: (1) the "dismemberment," or coming apart, of the family due to the death, desertion or divorce; (2) the "accession" or addition of new or returning family members, such as step-parents, an unplanned baby, a planned baby, adoption, or the return of a former deserter; (3) the "demoralization," or sense of disgrace, which may result from infidelity, alcoholism, nonsupport, or addiction; and

(4) a combination of the above, which may include suicide, imprisonment, homicide, or mental illness (Hill, 1949). Later work on general life stressors classified forty-three life events that cause individual stress (Holmes & Rahe, 1967). According to Holmes and Rahe (1967), the top twelve stressors effect not only the individual, and have a strong impact on the families of the individual involved. In addition, the most serious stressors to individuals result from family issues. Among these are the death of a spouse, divorce, marital separation, the death of a close family member, marriage, marital reconciliation, change in the health of a family member, and pregnancy (Holmes & Rahe, 1967).

Bain (1978), utilizing the Holmes and Rahe scale, found that a family's capacity to cope depends upon the psychosocial factors involved in a crisis. He noted that differences in the effects of stress on families depends upon the nature of the social relationships within which the changes were made.

Other works on family stress introduce new issues such as stresses of aging and extreme environmental stress (McCubbin & Blum, 1985). Environmental stress refers to families who live in a uniquely oppressive environment such as refugee and ghetto situations. More recent studies of stress have focused on the role of community involvement, the possible productive outcomes of stress, and

the family's adaptive and problem solving capacity (Marotz-Baden & Colvin, 1986; McCubbin & Blum, 1985).

A number of studies have begun to examine the relationship between parents and their adult children (Cicirelli, 1983; Hill, 1970; Houser & Berkman, 1984; Johnson & Bursk, 1977; Quinn & Hughston, 1979). The results of recent studies have shown the relationship between parents and adult children to be a dynamic one, full of give and take, ups and downs. One of the most dynamic family situations is where father, mother, son, or daughter and spouse interact and work together every day such as two-generation farm/ranch families (Urey & Henggeler, 1983; Weigel, et al., 1987).

Two-Generation Farm Family Stress

Most of the research exploring family dynamics across generations has emerged within the last few years (Marotz-Baden, 1986; Marotz-Baden & Cowan, 1987; Rosenblatt & Anderson, 1981; Salamon & Markan, 1984; Weigel et al., 1987). Until recently, research on two-generation farm/ranch operations has focused only on the management of the operation in the father and son dyad (Coughenour & Kowalski, 1977; Harvey, 1976; Kowalski, 1975; Smith & Zopf, 1970) and how to successfully transfer the operation from one generation to the next (Harl, 1983; Thomas & Boehlje,

1976). The internal dynamics of two generation farm/ranch families have been largely ignored.

Coughenour & Kowalski (1977) stated that issues of parent and adult child relationships become confused when members of two-generation families must choose when to deal with someone as a family member and when as a co-worker. Role confusion emerges in family and business relationships when families live and work closely together (Bennett, 1982; Kohl, 1976). Confusion over roles is likely to interfere with productive farm/ranch management as well as family relationships (Prokesch, 1986).

Questions of coming age, work advancement, and sibling favoritism have been identified as complicating factors when families live and work closely together (Bennett, 1982; Kohl, 1976). Authority and control in the farm/ranch operation are issues that emerge as family members grow older. With age, the transfer of the operation and issues of authority and control emerge as potential stressors and sources of friction between generations (Berkowitz & Hedlund, 1979). The conflict over inheritance and transfer of the farm/ranch operation is an issue that exists as long as the families continue farming or ranching as a two-generation operation (Rosenblatt & Anderson, 1981; Russell, 1981; Salamon & Markan, 1984).

Weigel et al. (1987) reported the older generation in two-generation farm/ranch families were clearly more

satisfied with their situation than did the younger generation. As an explanation, Weigel et al. (1987) stated that the older generation is proud of the results of their years of effort on the operation. They know where they have been and are satisfied. In contrast, members of the younger generation see where they must go and as a result are less satisfied. They may be frustrated because they have not achieved a level of equality with their parents.

Weigel and colleagues (1987) offered a second explanation for the difference in satisfaction ratings between generations. Members of the older generation may see the two-generation farm family as a team effort with parents and children working together. The younger generation may not experience this feeling of teamwork; rather they may see themselves as labor and their parents as management. They may not experience a feeling of control and, hence, are less satisfied.

Measure of Two-Generation Farm Family Stress

The nature of two-generation stress is unique and requires special measures to identify the unique qualities of stress present in two-generation farm/ranch families. The Farm Family Stress scale (FFS) is a 22 item scale that was developed specifically to measure the unique nature of stress experienced by two-generation farm/ranch families.

(Marotz-Baden, 1983; Weigel et al., 1984). The scale was developed through personal interviews with 15 two-generation farm/ranch families. From these interviews, an original pool of 51 stressors were identified. The pool of 51 items was reduced to 22 after ranking by a panel of judges made up of farm families, and family and farm extension specialists. The criteria for final inclusion of stressor items was the frequency of occurrence in two-generation farm families.

In using the Farm Family Stress scale, Weigel et al. (1987) reported a significantly higher stress score among members of the younger generation. They cautioned that it is not clear whether the stress ratings were due to occupational differences, developmental differences, or a combination of both. As an explanation they reported that sons more often provide the labor to two-generation farm operations and fathers provide the management (Coughenour & Kowalski, 1977). The lack of input into decisions affecting the operation may lead to greater feelings of stress in the younger generation. They concluded that the family farm situation is more stressful for the younger generation.

As an additional explanation, Weigel et al. (1987) stated that both generations are at different stages of the life cycle. The younger couple is attempting to establish a separate identity. They are concerned about growth

aspects of the farm operation. The parents have already established their own identity as a couple and may now be looking forward to exiting the farm operation. It is possible that differing developmental needs may account for different stress levels between the generations.

In a related study, Weigel et al. (1986) surveyed 481 adults from two-generation farm/ranch operations. The results of the survey revealed that outside of "living with tight money," the most common stressors reported were all related to family relationship issues. In addition, Weigel and colleagues (1986) surveyed the coping strategies farm families utilize in order to adapt to stress. They concluded that the nature of relationships among family members is a key factor to making the two-generation farm/ranch successful (Weigel et al., 1986).

Marotz-Baden (1986) has further utilized the Farm Family Stress scale on two-generation farm families in Montana. Because the 22 items of the farm family stress scale appear to represent a variety of stressors, the scale was factor analyzed using the entire Montana data set of 184 respondents to see to what degree these 22 items represented underlying dimensions. Five factors with eigen values greater than one emerged. The first factor, Lack of Equal Status, accounted for 34.1% of the total variance among variables. It reflects a lack of equality between the two generations and among family members generally.

The second factor, Family versus Farm, explained 9.3% of the variance and reflects the demands of the farm that are in conflict with the time demands of the family. Money worries accounted for 8.0% of the variance in the third factor labeled Financial Concerns. The fourth factor, Independence-Dependence reflects the desire for more independence and accounted for 6.6% of the variance. The final factor, Extended Family Conflict explained 4.9% of the variance and reflects concern over time spent together as a family and differing child rearing practices.

Marotz-Baden (1986) reported that out of the 184 respondents to the Montana Farm Family Stress questionnaire, 25 were complete, four person, two-generation families. One of these families had two married sons, so Montana's intact two-generation family sample consists of 102 persons. In reporting the analyses of these 25 complete families, Marotz-Baden (1986) stated that on the Farm Family Stress Scale, the younger generation reported significantly more stress than the older generation. Results of the 25 complete families showed that sons are facing the most stress, followed by their wives, their mothers, and lastly, their fathers. Marotz-Baden (1986) also pointed out that none of the older generation has completely transferred all of farm/ranch assets to the younger generation. Thus, it can be assumed

that the older generation maintains at least some control and power over the farm/ranch operation.

Marotz-Baden (in press) stated that the number of stressors with which rural farm families must deal is related to the stage of the life cycle. Retired couples and those with no children living in the home face fewer stressors than couples in other life cycle stages. Marotz-Baden (in press) also pointed out that non-normative stressors are related to occupation and life style. Part of the stress experienced by members of the younger generation may be due to the intergenerational nature of their occupation and life style, part to normative stressors associated with life-cycle stage, and the rest to other stressors.

On the other hand, additional research utilizing the Montana two-generation farm family data set showed that more than half of the families live within 10 miles of each other (Marotz-Baden & Cowan, 1987). Close proximity was a fact of life for many of Montana's farm/ranch families. Correlations between living in close proximity and farm family stress for mothers and daughters-in-law showed living close together did not significantly increase stress levels. These data suggest that living in close proximity had no effect on the stress levels of Montana's two-generation farm/ranch women.

Research Hypotheses

The remainder of this chapter is concerned with a review of the literature on the specific independent variables in this study. These variables include: marital cohesion, length of time married, income satisfaction, and number of household dependents. A discussion of the differences in perceived stress levels between genders and generations is also included.

Gender and Generation

In a study comparing the coping strategies of rural and urban families, Marotz-Baden and Colvin (1986) found intra-family strains to affect wives more than husbands. Wives reported greater movement in and out of the home than did their husbands. The differences in stress levels may be due to the wife's greater sensitivity to home and family matters (Atkinson & Huston, 1984; Marotz-Baden & Colvin, 1986; McHale & Huston, 1984). Traditional gender role orientations of men lead them to feel greater stress due to stressors outside the home while traditional gender role orientation of women lead them to feel greater stress due to home and family matters (Atkinson & Huston, 1984; McHale & Huston, 1984; Riegel, 1975). Gender related stressors are due to the nature of each gender's role socialization (Epstein, Bishop, & Baldwin, 1982; Lewis & Spanier, 1979; Marotz-Baden & Colvin, 1986; Nye, 1976). It

appears that gender is likely to effect perceived stress levels among members of two-generation farm/ranch families.

As discussed earlier, perceived stress levels resulting from two-generation farm/ranch operation among Montana's two-generation farm/ranch population varied between the generations. The younger generation consistently reported higher stress levels resulting from farming with family members than did the older generation (Marotz-Baden, 1986; Weigel et al., 1987). In order to acknowledge the effects of gender and generation in the present study, analyses were run on each individual family member. Analyses were run by separating out family members according to their position in the family (i.e., father, mother, son, and daughter-in-law) and testing the hypotheses for each family position.

Marital Cohesion

The issue of cohesion has been identified by many scholars as central to the understanding of family life. Olson, Russell, and Sprenkle (1979) developed the Circumplex model of marital and family systems with cohesion being one of the major dimensions. Kantor and Lehr (1976) view "distance regulation" as a major family function. Minuchin (1967) talks about "enmeshed and disengaged" families. Hess and Handel (1959) describe the families need to "establish a pattern of separateness and connectedness."

The process of establishing boundaries between family systems begins with the marital relationship.

Early marriage is a time of negotiation between the marital pair regarding how to relate to each other in the new family system (Vines, 1979). Negotiating new roles, rules, and relationships is part of accepting the responsibilities of marriage. Marriage has been identified as a major stressor affecting the life style of both partners in the relationship (Boss, 1983; Hill, 1949; Vines, 1979).

Newly married couples must cope with a number of normative stressors occurring over a relatively short period of time. The new role of spouse may be compounded with additional roles such as the provider role, housekeeper role, kinship role, nurturing role, recreational role, therapeutic role, support and empathy role, and sexual role (Epstein et al., 1982; Lewis & Spanier, 1979; Nye, 1976). In addition, each partner may be thrust into the childcare role and the child socialization role shortly after marriage (Epstein et al., 1982; Nye, 1976). The rapidly increasing roles of younger married couples are normative stressors which contribute to the cumulative "pile up" of stressors.

Boss (1983) used the term "boundary ambiguity" to explain the lack of autonomy or individuation from one's family of origin and the effect this has on the emerging

marital relationship. Marital boundaries are indicated by who is performing what roles and tasks inside the nuclear family system, and who is perceived by the family members, and especially by the executive pair, as being present inside the family (Boss, 1983, p. 28).

Functional marital relationships involve being joined to the extended family system, yet, able to differentiate from families of origin (Bowen 1978; Minuchin, 1974). In order to enjoy optimal family functioning, married couples should form a bond or cohesiveness with each other that is separate from the bond each person has or that they jointly hold with their families of origin (Hess & Handel, 1959; Kantor & Lehr, 1976; Minuchin, 1974). Clearly defined marital and family boundaries contribute to functional family relations (Minuchin, 1974).

After reviewing the research on marital boundaries, Boss (1983) concluded that the greater the boundary ambiguity between families of origin and the marital pair at various developmental and normative junctures throughout the family life cycle, the higher the marital and individual stress and the greater the risk for marital dysfunction. Resolution of cross generational boundary ambiguities is necessary before the marital couple can reorganize and move on toward new functioning at lower levels of stress (Bowen, 1978; Broderick & Pulliam-Krager, 1979; Duvall, 1954; Minuchin, 1974).

Lee (1978) stated that older couples reported significantly less conflict and greater happiness and life satisfaction than do younger couples. Over time, older couples evaluate their marriages in a more positive manner than younger couples. Older couples more often than younger couples describe the quality of their marriages as improving (Lee, 1978).

Lower levels of stress for members of the older generation in two-generation farm/ranch families may result from the marital pair having had sufficient time to establish boundaries and resolve role conflicts as a couple (Weigel et al., 1987). The marital relationship may be viewed as a resource which older couples utilize to adapt to stress.

Higher stress levels for members of the younger generation may stem from conflict over the negotiation of roles in the new marital and family system (Lee, 1978; Vines, 1979). The marital relationship may actually be contributing to the "pile up" of stressors for members of the younger generation rather than being a source of emotional support.

The double ABCX model of family stress emphasizes the importance of the family system as a resource when adapting to stress. The family who has developed moderate levels of cohesion and integration is likely to weather stressor events with more ease than families who have not developed a

cohesive unit or in families who are over-involved in each others' lives (McCubbin & Patterson, 1983). Moderate levels of marital and family cohesion are the most important resources in the management of crisis (Boss, 1983; Hess & Handel, 1959; Kantor & Lehr, 1976; Minuchin, 1967; Olson, Russell, & Sprenkle, 1979). This may have particular relevance to families who live and work closely together. Thus, the relevant hypotheses are:

- 1: The higher the level of marital cohesion in the marital relationship, the lower the level of perceived stress resulting from two-generation farm/ranch operation.
- 2: The longer the individual has been married to his/her present spouse, the lower the perceived level of farm family stress.

Income Satisfaction

Most segments of the United States population were affected by increased inflation in the last ten years. Farm families are among the groups that have been hit the hardest by inflation (Noecker-Guadagno, 1983). Coward and Jackson (1983) reported that since World War II the average size of individual farm/ranch operations has increased about 150% and the capital investment necessary to operate these larger units has risen markedly. In order to cope with financial stressors, over half of the male farm

operators in America were also employed off the farm by 1978 (Wilkening, 1981).

"Living with tight money" was reported as the number one stressor for all family members involved in two-generation farm/ranch operations (Weigel et al., 1986). In dealing with stressors such as tight money, Noecker-Guadagno (1983) stated that it is not the stressor event per se that leads to family dysfunction or breakdown, but the family's perception of the stressor event which determines how much stress will be experienced.

A perceived lack of financial resources may be experienced as an additional stressor which contributes to the "pile up" of stressors. Those families who are satisfied with their financial position may view finances as a resource to utilize in order to cope with stress rather than a source of additional stress. Based on this information, hypothesis three states:

- 3: The higher the level of income satisfaction the lower the level of stress resulting from two-generation farm/ranch operation.

Number of Household Dependents

Living closely in a nuclear family system results in additional stressors which contribute to the "pile up" of stressors. Parents who have children living at home have less satisfying marriages and experience more stress than either young couples who have no children or older parents

whose children are no longer living at home (Miller & Myers-Walls, 1983; Miller, 1976; Rollins & Feldman, 1970). Stressors resulting from family living can be divided into three categories: physical, psychological, and financial (Miller & Myers-Walls, 1983). Physical demands have to do with direct physical caregiving activities such as feeding, sheltering, clothing, and so forth. Such physical stressors as bathing, laundering, and comforting are probably most pronounced during the years when children are young. It is not uncommon for parents to report being worn out, fatigued, or exhausted as a result of providing for the physical needs of children (Miller & Myers-Walls, 1983).

Although physical demands may decrease as children grow older and become more independent, psychological stressors are more likely to increase (Miller & Myers-Walls, 1983). Part of the emotional stress arises out of a concern for the safety and well-being of family members. The emotional and psychological experiences of one member will more than likely effect other family members (Bowen, 1978; Minuchin, 1974). Family members may feel anxiety when other family members are in physical or social danger. Family members often feel hurt when other family members are treated unfairly (Miller & Myers-Walls, 1983).

Financial stressors include the responsibility of providing for the needs of all family members. It is estimated that the average direct costs of raising a child

from birth to age 18 are about three or four times the family's annual income (Miller & Myers-Walls, 1983). Financial stressors also come from disagreements between parents, as well as between parents and children, about how money should be spent. Economic disagreements, dissatisfactions, and worries appear to peak with school-aged and adolescent children (Aldous & Hill, 1969).

The physical, psychological, and financial stressors that result from living closely together in a family unit contribute to the "pile up" of stressors in two-generation farm/ranch families. Consequently, hypothesis four states:

- 4: The greater the number of people living in and dependent on the household, the higher the level of stress resulting from two-generation farm/ranch operation.

Summary

This chapter reviewed the literature pertaining to stress and specifically two-generation farm family stress. Aspects of the research literature dealing with gender, generation, marital cohesion, income satisfaction, and number of household dependents were reviewed. Although little research was found on the internal dynamics of farm/ranch families, a conceptual framework was provided from which hypotheses predicting stress unique to two-generation farm families can be evaluated.

CHAPTER 3

METHODS

The data for this study came from a secondary data analysis of a larger and extant Western Regional Agriculture Experimental Station project. The regional project involves the states of Arizona, California, Colorado, Montana, Nevada, Oregon, Utah, Washington and Wyoming (Marotz-Baden, 1983). In Montana, researchers are investigating how rural kinship systems are mitigating the effect of economic stressors on farm/ranch families. Specifically, they are examining how these families transfer assets across generations, the stressors inherent in intergenerational transfer of farm land, and the strategies Montana farmers and ranchers utilize to combat these stressors (Marotz-Baden, 1983). This study utilized a subset of the Montana data.

Sample

The Montana Agriculture Soil and Conservation Service identified a random sample of 10% of Montana farm and ranch operations based on their records of multi-family operations that farmed/ranched more than 200 acres in the state of Montana. In December, 1984, a letter explaining

the research project was sent to each of the 400 operations who had been identified as potential participants and who had the father and mother and at least one married son and his wife who farmed or ranched together. After a January 1985 follow-up letter, a total of 253 families (63%) responded. Of these 253 families, seven (2.8%) were unwilling to participate in the project. One hundred seventy-nine of the families (70.8%) were not eligible because they did not meet the criterion of having an intact older generation and an intact younger generation with sons rather than daughters who were involved in the farm/ranch operation. A total of 68 (27%) two-generation families met the criterion of an intact couple of each generation. Individual questionnaires were sent separately to each spouse in these 68 families. After two follow-up letters, a total of one hundred and eighty four people responded (64.3%).

Procedures

Separate questionnaires for the Montana project were developed for each family member (i.e., father, mother, son, and daughter-in-law). A number of questions were identical on each questionnaire. Questions that addressed various issues from each person's personal perspective were also included. Some of the measures were selected by the Regional W-167 planning committee for the regional project.

Others were selected or designed specifically to measure the independent and dependent variables that were peculiar to the Montana project.

The measures for two-generation farm family stress, marital cohesion, length married, and income satisfaction were included on each family member's questionnaire. In addition, mothers and daughters-in-law were asked to respond for their respective households to the measure for household dependency. Each respondent was sent a questionnaire designed specifically for his/her position in the family (i.e., father, mother, son, daughter-in-law). Therefore, the measures for gender and generation were predetermined.

A sample of ten two-generation farm/ranch families from a neighboring county were used to pretest the questionnaire. After a revision, the questionnaires were re-tested again with members of another two-generation farm family. The questionnaires were then slightly revised.

Those who participated in the study were asked to complete the questionnaire in private. Instructions were given not to consult with spouses or other family members about the questionnaire items until the questionnaire had been mailed. Each respondent was given a self-addressed stamped envelope to be used to return the questionnaire to the researchers.

Description of the Sample

The sample is described in Table 1. The mean age of fathers was 60.4 years. The mean age of mothers was 60.1 years. The sons mean age was 34.6 years, and the daughters-in-law averaged 31.6 years. The older generation had been married for an average of 35.8 years and had 4 children. The younger generation had been married an average of 10.5 years and had 2.5 children. The younger generation had considerably more education than the older generation with just over half of the older generation reporting a high school education or less. Over two-thirds of the younger generation had some post high school education either in college or a trade school.

Ninety-seven percent of the older generation owned their own home. Seventy-two percent of those homes were located on the farm/ranch. Eighty-two percent of the younger generation reported owning their own homes. Eighty-two percent of the younger generation lived on the farm/ranch. Before tax incomes in 1984 for the older generation averaged \$30,000 to \$39,000. Before tax incomes in 1984 for the younger generation averaged \$20,000 to \$29,999.

Between the two generations, the families farmed or ranched, including leased land, between 400 and 11,500 acres in 1984. Fathers reported farming an average of 3250 acres, while sons reported farming an average of 3832

Table 1. Description of the Sample.

	Father (n=35)	Mother (n=44)	Son (n=50)	Daughter- in-law (n=55)
Mean Age in Years	60.4	60.1	34.6	31.6
Mean Years Married	35.8		10.5	
Mean Number of Children	4.0		2.5	
Education	percentage	percentage	percentage	percentage
Less than High School				
Graduate	29	15	2	4
High School Graduate	32	44	14	30
Some Trade School	9	0	6	6
Trade School	6	5	8	4
Some College	21	28	37	30
College Degree	0	3	21	21
Graduate Work	3	5	12	5
Income	percentage	percentage	percentage	percentage
Under \$9,999	13	18	13	15
\$10,000-\$19,999	21	27	29	28
\$20,000-\$29,999	22	12	21	33
\$30,000-\$39,999	10	7	8	8
\$40,000-\$49,999	3	3	6	2
\$50,000-\$59,999	6	12	4	0
\$60,000-\$69,999	3	0	2	0
\$70,000-\$79,999	10	6	2	2
\$80,000 or more	12	15	15	12
Mean	\$30,000-39,999		\$20,000-29,999	
Mean Years Farmed				
Total	42		15	
With Family Member	10		12	
Mean Acres Farmed	3,250		3,832	
Residency	percentage		percentage	
On Ranch	72		82	
In Town	21		11	
Other	7		7	
Housing	percentage		percentage	
Own Home	97		82	
Farm Corporation Owns	3		11	
Other	0		7	

acres. Fathers had been farming anywhere from 10 years to 68 years with 42 years the average time tha they had farmed. Sons reported farming anywhere from 2 years to 45 years with an average of 12 years. Fathers reported farming together with their sons an average of 10 years while sons reported farming with their fathers an average of 12 years.

Data Reduction and Transformation

Researchers in each of the nine states that are participating in the project coded their own data. The data from the Montana project was transferred to code sheets, entered on the main computer at Montana State University, and transferred to computer tapes for back-up purposes. The information is stored at Montana State University.

Operational Definitions

Two Generation Stress

The dependent variable measure for two-generation farm family stress was measured by the Farm Family Stress scale. This scale was developed to measure stress which is likely to result from stressor events experienced when two-generations of families operate an agriculture enterprise together (Weigel et al., 1987). The measure was included in each of the four questionnaires (i.e., father, mother, son, and daughter-in-law). The measure has a reported reliability of .90 for the older generation and .91 for the

younger generation using Cronbach's alpha (Weigel et al., 1987). The validity has not been established.

Participants were asked to respond to 22 items dealing with farm and family stress that may have occurred within the past two years. Stressors include items such as authority, job tasks, teamwork, money, differing lifestyles, and values, and communication (see Appendix A). The questions required answers on two dimensions. The first asks if the situation occurred within the last two years. The response choices range from a 1 for "seldom," 2 for "sometimes," and 3 for "frequently." The second dimension asks the participant to respond according to how disturbing the situation was. The response choices range from a 1 for "not disturbing," to a 5 for "extremely disturbing."

Marital Cohesion

The Locke-Wallace Short Marital-Adjustment and Prediction Test (1959) was included in each family member's questionnaire. It measures the degree of agreement between a husband and wife to each other on given topics.

Respondents are asked to answer a variety of questions regarding overall satisfaction as well as the level of agreement on issues such as finances, sexual relations, recreation, friends, and philosophy of life. Response choices range from a 1 for "always disagree," to 6 for "always agree," (see Appendix A). Other questions on the test ask about the level of satisfaction with one's mate,

common interests, level of understanding, needs being met, and happiness with the marriage.

The split-half technique corrected by the Spearman-Brown formula was used by Locke-Wallace (1959) to compute the reliability coefficient of the adjustment test. The split-half reliability coefficient was found to be .90. Thus, the Locke-Wallace Short Adjustment Test is considered to have high reliability. The reliability coefficient for the marital prediction portion of the test as computed by the split-half technique and corrected by the Spearman-Brown formula is .84.

Length of Time Married

Mothers and daughters-in-law were asked to respond to the question: "How long have you been married to your present spouse?" Respondents wrote the number of years in the current marital relationship (see Appendix A). Scores were obtained for fathers and sons by matching their questionnaires with the questionnaires of their wives. The scores were then transferred from their wives' questionnaires and coded as "length of time married" for fathers and sons. Thus, each husband's score corresponded with the score of his wife. Those husbands whose wives did not respond to the questionnaire were assigned a "missing" score.

Income Satisfaction

The level of income satisfaction incorporated six questions which represent each respondents' satisfaction with the level of income, money for necessities, ability to handle financial emergencies, amount of money owed, level of savings, and money for future needs (see Appendix A). The response choices range from a 1 for "extremely satisfied," to a 6 for "extremely dissatisfied." Using Cronbach's alpha reliability rating, this scale has a reliability coefficient of .87 for this sample (see Appendix B).

Number of Household Dependents

Number of household dependents refers to the number of individuals living in the same household. Mothers and daughters-in-law were asked to write in the gender, ages, and relationships of individuals living in the household (see Appendix A). Scores were obtained for fathers and sons by transferring the "household dependents" score from their wives' questionnaires and entering the same score for each father and son of the same household. Each husband's score matched that of his wife. Husbands whose wives did not respond to the questionnaire were assigned a "missing" score.

Analyses

Stepwise multiple regression analyses was used to test the hypotheses for the Montana two-generation

farm/ranch sample. In order to insure independence of the sample and meet the assumptions of multiple regression, analyses were run on four sub-samples (i.e., fathers, mothers, sons, and daughters-in-law). Independent samples are required for all parametric statistics such as were employed in this study.

Multiple regression analysis was used to examine linear relationships of the set of independent variables on the dependent variable. Multiple regression was selected because it examines the strength of relationships in multivariate analysis where several independent variables and a single dependent variable are analyzed (Cohen & Cohen, 1983; Neter, Wasserman, & Kutner, 1983; Tabachnick & Fidel, 1983). The Statistical Analysis for the Social Sciences-X (SPSS-X) was used to conduct the analyses (Hull & Nie, 1981; SPSS, Inc., 1983).

In addition to multiple regression analyses, several other statistical analyses were employed in this study. Pearson correlations for each family member were conducted to ascertain the strength of the relationship of each independent variable with the dependent variable. Descriptive statistics for the dependent variable and each independent variable for each family member included means, frequencies, and standard deviations. A reliability analysis for the scale of items measuring income satisfaction was conducted (see Appendix B).

Multiple regression was used to test the hypotheses of this study for each family member. To test each hypothesis, standardized betas and unstandardized regression coefficients were examined for statistical significance at $p < .05$. Multiple Rs and R^2 (multiple correlation squared) were used to examine the overall predictive capacity of the regression models.

Examination of the correlation matrix and tolerances for each family member were used to test for the problem of multicollinearity among the independent variables. An analysis of scatterplots and histograms were used to check for the appropriateness of statistics having parametric and linear assumptions (Cohen & Cohen, 1983; Neter, Wasserman, & Kutner, 1983; Tabachnick & Fidel, 1983).

CHAPTER 4

RESULTS

The independent variables of marital cohesion, length of time married, income satisfaction, and number of household dependents were examined as predictors of stress for each family member involved in the two-generation farm/ranch operation. Multiple regression analysis was used to test the hypotheses. Descriptive statistics for the dependent and independent variables for each family member in the study are presented in Tables 2, 3, 4, and 5.

Data AnalysisMarital Cohesion

The first hypothesis proposed that marital cohesion would be negatively related to stress for each member of two-generation farm/ranch families. This hypothesis was supported for fathers with a significant standardized regression coefficient of $-.37$ (see Table 6). The hypothesis for mothers, sons, and daughters-in-law was not supported with the presence of non-significant standardized regression coefficients of $.17$ for mothers (see Table 7), $-.08$ for sons (see Table 8), and $-.25$ for daughters-in-law (see Table 9).

Table 2. Descriptive Statistics for Two-generation Farm Family Stress and Predictor Variables for Fathers.

Variables	Mean	Range	Standard Deviation	Number of Cases
Farm Family Stress Score	30.27	22 - 110	8.97	35
Marital Cohesion Score	114.79	0 - 150	21.75	33
Length of Time Married	36.42	6 - 52	9.79	31
Income Satisfaction Score	24.53	6 - 36	5.46	30
Number of Household Dependents	2.48	2 - 5	.87	29

Table 3. Descriptive Statistics for Two-generation Farm Family Stress and Predictor Variables for Mothers.

Variables	Mean	Range	Standard Deviation	Number of Cases
Farm Family Stress Score	31.84	22 - 110	9.82	43
Marital Cohesion Score	111.00	0 - 150	25.85	38
Length of Time Married	35.80	4 - 52	10.32	40
Income Satisfaction Score	24.09	6 - 36	6.08	35
Number of Household Dependents	2.50	2 - 5	.95	38

Table 4. Descriptive Statistics for Two-generation Farm Family Stress and Predictor Variables for Sons.

Variables	Mean	Range	Standard Deviation	Number of Cases
Farm Family Stress Score	41.69	22 - 110	11.95	48
Marital Cohesion Score	104.46	0 - 150	25.69	46
Length of Time Married	9.56	0 - 27	6.02	45
Income Satisfaction Score	21.41	6 - 36	5.50	49
Number of Household Dependents	4.00	2 - 5	.74	45

Table 5. Descriptive Statistics for Two-generation Farm Family Stress and Predictor Variables for Daughters-in-law.

Variables	Mean	Range	Standard Deviation	Number of Cases
Farm Family Stress Score	46.65	22 - 110	13.86	52
Marital Cohesion Score	102.50	0 - 150	28.53	54
Length of Time Married	10.48	0 - 29	6.73	54
Income Satisfaction Score	20.94	6 - 36	5.50	54
Number of Household Dependents	4.00	2 - 5	.78	54

Table 6. Multiple Regression Results for Predictor Variables with Two-generation Farm Family Stress for Fathers.

Variables	r	b	B	tol
Marital Cohesion	-.36*	-.16	-.37**	.93
Length Married	-.30*	-.35	-.36*	.70
Income Satisfaction	-.46**	-.64	-.36*	.93
Number of Household Dependents	.08	-1.25	-.11	.74

Multiple Correlation (R) .63
 Multiple Correlation Squared (R^2) .40
 Adjusted R^2 .32
 F-Value 4.938**

* = $p < .05$
 ** = $p < .01$
 *** = $p < .001$

r = bivariate correlation
 b = Unstandardized beta
 B = Beta or standardized regression coefficient
 tol = tolerance

Table 7. Multiple Regression Results for Predictor Variables with Two-generation Farm Family Stress for Mothers.

Variables	r	b	B	tol
Marital Cohesion	-.14	-.07	-.17	.97
Length Married	.19	.15	.15	.94
Income Satisfaction	-.27*	-.55	-.30*	.97
Number of Household Dependents	-.15	-1.49	-.14	.94

Multiple Correlation (R) .39
 Multiple Correlation Squared (R^2) .16
 Adjusted R^2 .06
 F-Value 1.744

* = $p < .05$
 ** = $p < .01$
 *** = $p < .001$

r = bivariate correlation
 b = Unstandardized beta
 B = Beta or standardized regression coefficient
 tol = tolerance

Table 8. Multiple Regression Results for Predictor Variables with Two-generation Farm Family Stress for Sons.

Variables	r	b	B	tol
Marital Cohesion	-.07	-.04	-.08	.89
Length Married	-.11	-.23	-.11	.99
Income Satisfaction	.02	.09	.04	.97
Number of Household Dependents	.01	.67	.04	.91
Multiple Correlation (R)	.14			
Multiple Correlation Squared (R ²)	.02			
Adjusted R ²	.00			
F-Value	.227			
* = p < .05 r = bivariate correlation ** = p < .01 b = Unstandardized beta *** = p < .001 B = Beta or standardized regression coefficient tol = tolerance				

Table 9. Multiple Regression Results for Predictor Variables with Two-generation Farm Family Stress for Daughters-in-law.

Variables	r	b	B	tol
Marital Cohesion	-.21	-.12	-.25	.94
Length Married	-.07	-.11	-.05	.95
Income Satisfaction	.12	.33	.13	.92
Number of Household Dependents	.05	1.50	.08	.93
Multiple Correlation (R)	.28			
Multiple Correlation Squared (R ²)	.08			
Adjusted R ²	.004			
F-Value	1.048			
* = p < .05 r = bivariate correlation ** = p < .01 b = Unstandardized beta *** = p < .001 B = Beta or standardized regression coefficient tol = tolerance				

Length of Time Married

The second hypothesis indicated that the length of time each individual had been in the current marriage would have an inverse relationship with stress for each member of two-generation farm/ranch families. This hypothesis was supported for fathers with a significant standardized regression coefficient of $-.36$ (see Table 6). The hypothesis was not supported for mothers, sons, and daughters-in-law. Non-significant standardized regression coefficients of $.15$ for mothers (see Table 7), $-.11$ for sons (see Table 8), and $-.05$ for daughters-in-law (see Table 9) were obtained.

Income Satisfaction

The third hypothesis stated that income satisfaction would be inversely related to stress for each member of two-generation farm/ranch families. Support for this hypothesis was provided for fathers and mothers as indicated by the presence of a significant standardized regression coefficient of $-.36$ for fathers (see Table 6) and $-.30$ for mothers (see Table 7). The hypothesis for both sons and daughters-in-law was not supported. Non-significant standardized regression coefficients of $.04$ were present for sons (see Table 8) and $.13$ for daughters-in-law (see Table 9).

Household Dependents

The fourth hypothesis proposed that the number of household dependents would be positively related to stress for each member of two-generation farm/ranch families. This hypothesis was not supported for any family member. The results are indicated by the presence of non-significant standardized regression coefficients of $-.11$ for fathers (see Table 6), $-.14$ for mothers (see Table 7), 0.4 for sons (see Table 8), and $.08$ for daughters-in-law (see Table 9).

Appropriateness of Multiple Regression

Tests for the appropriateness of multiple regression were used to determine the appropriateness of this form of analysis to the present study. Regression analysis requires that the assumptions of normality, linearity, and homoscedasticity be met. Tests of residual analysis, normal probability plots, and frequency histograms were conducted in order to assure that the assumptions of multiple regression analysis were met (Neter et al., 1983).

The assumption of normality rests on the presumption that the distribution of the dependent variable is normally and independently distributed (Younger, 1979). Separate analyses for each family were conducted in order to assure sample independence. Histogram frequencies were used for each family member to test for the assumption of normality.

A negative bias in the histogram frequency appeared for all family members (see Figures 2, 3, 4, and 5, in Appendix C). Regression is a "robust" statistic and requires transformations of the data only if there are major violations of the assumptions. The negative bias represented in the histogram frequency are considered minor violations of the assumption of normality and are acceptable in the present study (Chatterjee & Price, 1977).

The assumption of linearity is concerned with the idea that the relationship between the dependent variable scores and independent variables scores will be linear (Tabachnick & Fidel, 1983). Scatterplots for each family member suggest only minor violations of the assumption of linearity.

Homoscedasticity is the assumption that the standard deviations of the dependent variable scores are randomly distributed and approximately equal above and below the zero point (Tabachnick & Fidel, 1983). This is determined with a visual examination of the scatterplots. No major violations were found in the scatterplots of the present study.

The possibility of multicollinearity is another important issue with multiple regression analysis. Multicollinearity reflects the degree to which the independent variables are explaining the same variance. High correlations between the independent variables indicates that the explained variance is shared by the two

variables. If multicollinearity is present the level of variance unique to each independent variable is unknown. Tolerance represents the proportion of variance that is uniquely explained by each independent variable. High levels of tolerance indicate that the variance explained in the study is unique to that particular independent variable. All of the independent variables for each family member had relatively high tolerances (see Tables 6, 7, 8, and 9, pp. 50-51). None of the variables appear to have high levels of multicollinearity.

A second check for multicollinearity was to examine the correlation matrix for high correlations among the independent variables. Tables 10, 11, 12, and 13, demonstrates that correlations among the independent variables for each family member were relatively low (i.e., none were .6 or above). Therefore, there was little reason to suspect multicollinearity.

Summary of Analyses

The residual analyses, analyses of the normal probability plots, and the frequency histograms demonstrated only minor violations of the multiple regression assumptions. Multicollinearity was tested for and was found not to be a problem. No transformations of the data were necessary due to the robust nature of multiple regression analysis (Tabachnick & Fidel, 1983).

Table 10. Correlations Among Predictor Variables and Two-generation Farm Family Stress for Fathers.

Variables	Farm Family Stress	Marital Cohesion	Length Married	Income Satisfaction	Household Dependents
Farm Family Stress	....				
Marital Cohesion	-.363	....			
Length Married	-.328	-.186	....		
Income Satisfaction	-.513	.151	.166	....	
Household Dependents	.130	-.085	-.484	.005	....

Table 11. Correlations Among Predictor Variables and Two-generation Farm Family Stress for Mothers.

Variables	Farm Family Stress	Marital Cohesion	Length Married	Income Satisfaction	Household Dependents
Farm Family Stress	....				
Marital Cohesion	-.151	....			
Length Married	.195	-.060	....		
Income Satisfaction	-.317	-.142	.001	....	
Household Dependents	-.155	-.010	-.229	-.103	....

Table 12. Correlations Among Predictor Variables and Two-generation Farm Family Stress for Sons.

Variables	Farm Family Stress	Marital Cohesion	Length Married	Income Satisfaction	Household Dependents
Farm Family Stress	....				
Marital Cohesion	-.078	....			
Length Married	-.118	.095	....		
Income Satisfaction	.020	.125	.093	....	
Household Dependents	.015	.301	.021	.000	....

Table 13. Correlations Among Predictor Variables and Two-generation Farm Family Stress for Daughters-in-law.

Variables	Farm Family Stress	Marital Cohesion	Length Married	Income Satisfaction	Household Dependents
Farm Family Stress	....				
Marital Cohesion	-.227	....			
Length Married	-.071	-.029	....		
Income Satisfaction	.123	.148	-.211	....	
Household Dependents	.048	.205	.069	.146	....

Summary of Results

The multiple regression analysis conducted for each family member in the study produced the following results:

1. Marital cohesion was negatively related to farm family stress for fathers. There was no statistical significant relationship between marital cohesion and farm family stress for mothers, sons, or daughters-in-law.
2. The length of time in the current marital relationship was negatively related to farm family stress for fathers. No statistical significant relationship existed for mothers, sons, or daughters-in-law between the length of time married and farm family stress.
3. Income satisfaction resulted in a negative relationship between farm family stress for both fathers and mothers. No statistical significant relationship between farm family stress and income satisfaction for either sons or daughters-in-law was found.
4. The measure for the number of household dependents was not statistically related to two-generation farm family stress for any member of the farm/ranch family.

The independent variables tested in the present study explained 32 percent of the total variance for fathers (see Table 6, p. 50). The predictive capacity of the present study for fathers was significant at the $p < .01$ level.

For mothers, the independent variables explained six percent of total variance (see Table 7, p. 50) but the overall predictive capacity for mothers was not significant. The regression analyses did not explain a significant amount of variance for sons (see Table 8, p. 51) which resulted in a non-significant predictive capacity. The independent variables explained less than one percent of the total variance for daughters-in-law (see Table 9, p. 51). The predictive capacity for daughters-in-law was also not significant.

CHAPTER 5

DISCUSSION AND CONCLUSIONS

The major objective of this study was to examine variables related to home and family life which significantly predict and explain stress in two-generation farm/ranch families. The independent variables of marital cohesion, length of time married, number of household dependents, and income satisfaction were examined to determine the degree to which each predicts two-generation farm family stress. These four independent variables were examined in independent models as predictors of stress for the sub samples of fathers, mothers, sons, and daughters-in-law. The results were presented in chapter four and are summarized and discussed in this chapter.

Discussion of the Results

Each variable used in the present study is briefly discussed as a predictor of stress resulting from two-generation farm/ranch operation. A discussion of the overall predictive capacity of the regression analyses for each family member (i.e., fathers, mothers, sons, and daughters-in-law) in the two-generation farm/ranch operation is also presented.

Two-generation Farm Family Stress

The dependent variable measure of farm family stress was derived from the Farm Family Stress scale. This 22 item scale was designed to measure the levels and types of stress experienced when families live and work closely together in a family farm/ranch operation. A score of 22 on the Farm Family Stress scale indicates that the respondent marked "not disturbing" for each of the 22 items on the scale. A score of 44 indicates a "slightly disturbed" respondent. A score of 66 reflects "moderately disturbed" individuals. Eighty-eight indicates the respondent was "quite disturbed", while a score of 110 reflects "extremely disturbed" (see Appendix A). Mean stress scores in the present study demonstrate low levels of stress for each family member.

As can be seen in Table 2 (p. 48), the mean stress scores of 30.27 for fathers reflects extremely low levels of stress. Many scores were below the mean with one score in the "moderately to quite" disturbed range (see Figure 2 in Appendix C). Almost half of the fathers scored in the "not disturbed" category. It appears that two-generation farm family stress is almost non-existent for fathers sampled in the present study.

Mothers reported a mean score of 31.84 which is also low and reflects mean stress scores for mothers in the "not to slightly disturbing" category (see Table 3, p. 48). The

range of scores for mothers is more normally distributed than the range of scores for fathers with the highest score in the "slightly to moderately disturbed" range (see Figure 3 in Appendix C).

A mean stress score of 41.69 for sons reflected more perceived stress than either fathers or mothers but again stress score are in the "not to slightly disturbing" range (see Table 4, p. 49). The majority of scores reflect low levels of stress with a few scores in the "moderately to quite disturbing" range (see Figure 4 in Appendix C).

Daughters-in-law reported the highest stress scores among the sample with a mean of 46.65. This indicates a mean stress score which is still relatively low and is in the "slightly to moderately disturbing" range for daughters-in-law (see Table 5, p. 49). As with other family members, many scores are below the mean with a few scores in the "quite disturbing" category (see Figure 5 in Appendix C).

The majority of family members in the Montana two-generation farm/ranch sample do not indicate high levels of stress resulting from farming/ranching with other family members. Most respondents reported two-generation farm family stress as being only slightly disturbing. This may result from the nature of the questionnaire. Respondents were asked to respond according to "how disturbing is the situation" rather than "how stressful is

the situation" (see Appendix A). Differences between perceptions of "disturbing" and "stressful" may result in different scores.

According to the double ABCX model of stress and crisis, the family network is a major resource from which family members receive support and encouragement (Bain, 1978; McCubbin & Patterson, 1983). Operating the farm/ranch with other family members may act as a source of social or emotional support or at least as a buffer to the perception of stressors (Burr, 1973; Olsen & McCubbin, 1982). Belonging to a familial social support network involving mutual obligation and mutual understanding may be a factor contributing to low levels of stress for Montana's two-generation farm/ranch population (Cobb, 1976).

Marital Cohesion

High levels of marital cohesion was expected to be significantly related to low levels of stress for each family member. This hypothesis was supported for fathers but not for mothers, sons, or daughters-in-law. Research on life span development indicates that the marital relationship is perceived as more satisfying in the later stages of the life cycle (Lee, 1978; Rollins & Feldman, 1970). The significant negative relationship between marital cohesion and stress for fathers is consistent with previous research (Marotz-Baden, 1987; Weigel et al., 1987). This suggests that fathers perceive the marital

relationship as a positive influence which acts as a resource for coping with the "pile up" of stressors.

Although previous research suggests that mothers experience high levels of satisfaction with the marital relationship (Lee, 1978; Marotz-Baden, 1987; Rollins & Feldman, 1970; Weigel et al., 1987), they are likely to perceive their major role and responsibility in the home and family environment (Atkinson & Huston, 1984; McHale & Huston, 1984; Riegel, 1975). Feeling responsible for marital and family tasks, mothers may be likely to perceive the task of maintenance of the marital relationship as their responsibility. The conflicting feelings of satisfaction with the marital relationship yet feeling responsibility for marital maintenance may act to counteract the effects of marital cohesion on stress. Marital cohesion scores for mothers may neither contribute to two-generation farm family stress nor act as a significant resource to cope with stress. As a result, a non-significant relationship between marital cohesion as a predictor of stress for mothers was found.

For members of the younger generation, functioning within the two-generation family system with relatively low stress levels may reflect well defined generational boundaries resulting from cohesive marital relationships (Boss, 1983; Bowen, 1978; Broderick & Pulliam-Krager, 1979; Minuchin, 1974). Although marital cohesion may be present,

previous research seems to indicate that members of the younger generation experience marital stress as a result of acquiring and negotiating new family roles (Cohen, 1987; Epstein et al., 1982; George, 1980; Hill & Joy, 1979; Lewis & Spanier, 1979; Neugarten & Hagestad, 1977; Nye, 1976; Vines, 1979). The mean stress scores in the present study for sons and daughters-in-law may reflect stress resulting from role transition rather than in association with two-generation farm family stress. Normative life cycle stressors may sufficiently modify the positive effects of marital cohesion so as to render marital cohesion a non-significant predictor of stress for sons and daughters-in-law.

Marital cohesion scores for sons and daughters-in-law may neither provide a resource for coping with stress nor contribute to two-generation farm family stress. The non-significant relationship for marital cohesion as a predictor of stress for sons and daughters-in-law in the present study may be due to the negating influence of the normative life cycle stressors associated with the acquisition of marital and family roles.

The Locke-Wallace Short Marital Adjustment Test is perhaps best understood as a measure of consensus and conventionality between the marital couple (see Appendix A). For the purposes of measuring marital cohesion, as opposed to consensus, the Locke-Wallace Short Marital

Adjustment Test may not have been a valid measure. A measure of marital cohesion as it relates to boundaries between families of origin may provide greater insight into the nature of two-generation farm family stress and marital cohesion for members of two-generation farm families.

Length of Time Married

The length of time in the present marital relationship was expected to predict lower levels of stress resulting from two-generation farm/ranch operation. This hypothesis was supported for fathers. It was not supported for mothers, sons, or daughters-in-laws. Members of the older generation reported being married about 25 years longer than members of the younger generation (see Tables 2, 3, 4, and 5, pp. 48-49) which reflects the generational difference in life cycle development.

The length of time in the current marital relationship was important in discussing the effects of marital cohesion on stress. Although not statistically significant, the variables of marital cohesion and length of time married appear to be parallel measures of the marital relationship. For this reason, the results for the variable measuring the length of time married may be explained in much the same way as the variable for marital cohesion.

Members of the older generation, having been married an average of 35 years, are likely to be in the stage of life cycle development where high levels of marital

satisfaction are present. Fathers, not feeling responsible for marital maintenance, are more likely to receive high rewards from the marital relationship, thus resulting in a significant inverse relationship between length of time married and two-generation farm family stress for fathers. Mothers are also likely to experience high levels of marital satisfaction; however, because mothers feel responsible for marital and family maintenance (Atkinson & Huston, 1984; Riegel, 1975), the effects of marital satisfaction resulting from being in the marital relationship for 35 years are negated. Thus, a non-significant relationship for length of time married as a predictor of two-generation farm family stress for mothers emerged in the present study.

Sons and daughters-in-law, having been married an average of 10 years, are likely to be in a stage of life cycle development where decreasing levels (i.e., compared to the initial level at the time of marriage) of marital satisfaction are experienced (Rollins & Feldman, 1970). Although internal family stress is likely to be present, 10 years of marriage may have been a sufficient length of time for sons and daughters-in-law to develop the marital unity which enabled them to maintain generational boundaries which logically result in low levels of two-generation farm family stress. Thus, the non-significant relationship between length of time married and two-generation farm

family stress for sons and daughters-in-law may be due to the competing effects of marital unity as a boundary between generations and internal family stress resulting from life cycle development.

The measure of length of time married does not reflect the actual strains and stressors that each generation experienced. The length of time married leads one to speculate what may be stressful based on research about various stages of the life cycle. The speculative nature of this finding recommends that more accurate measures of marital and family dynamics in relation to generational boundaries are needed.

Income Satisfaction

High levels of income satisfaction was expected to predict low levels of stress for each family member. This hypothesis was supported for both fathers and mothers. The hypothesis was not supported for sons or daughters-in-law. The significance of this measure as a predictor of stress for members of the older generation suggests a generational difference on the income satisfaction measure. The negative relationship between two-generation farm family stress and income satisfaction suggests that fathers and mothers perceive income satisfaction as contributing to lower levels of two-generation farm family stress.

Members of the older generation are likely to be in a position where minor children are no longer dependent on

parental income and, thus, the family financial demands are less. Fathers and mothers may have made a number of major purchases such as a home, an automobile, furniture and, as a result, may be satisfied with what their money has already bought them.

Family financial demands are likely to be more stressful for members of the younger generation with children at home (Weigel et al., 1986). Although stressful, sons and daughters-in-law may see themselves at the beginning of their farm/ranch career and anticipate an improvement in their financial circumstances later when the older generation exits the operation. This perception of an increase in financial resources in the future may compromise the effects of stressful family financial demands from present short comings. Thus, the non-significant relationship for income satisfaction as a predictor of two-generation farm family stress for sons and daughters-in-law may be negated by the opposing effects of present family financial demands and a perception of the potential for increased financial security in the future.

Household Dependents

As the number of household dependents increased it was expected that stress levels would increase for each member of the two-generation farm/ranch family. This hypothesis was not supported for any family member.

The results of this study are consistent with other findings which report parents who have children living at home to be under more stress than older parents whose children are no longer at home (Feldman, 1965; George, 1980; Miller, 1976). Having an average of four household dependents (see Tables 4 and 5, p. 49), members of the younger generation are likely to experience stress as a result of increased household and parental demands. Developmentally, however, sons and daughters-in-law may receive a sense of fulfillment and satisfaction through their parental roles (Erickson, 1968). Although increased parental and household demands may contribute to stress, the countervailing influences of the rewards of parenthood may account for a non-significant relationship between the number of household dependents as a predictor of two-generation farm family stress for sons and daughters-in-law in the present study.

Although stress is likely to decrease as children leave the home (Feldman, 1965; George, 1980; Miller, 1976), sharing the farm/ranch with sons and daughters-in-law may sustain feelings of parental responsibility for fathers and mothers. Even with fewer children at home, the feelings of parental responsibility for their children/business colleagues may negate the effects of fewer household members on stress for the older generation. Thus, a non-significant relationship resulted for the number of

household dependents as a predictor of two-generation farm family stress for fathers and mothers in the present study.

Predictive Qualities

The present study explained 32% of the variance (i.e., the adjusted R squared) of stress for fathers. The F-value for the fathers model was significant at the $p < .01$ level for fathers (see Table 6, p. 50). The study explained six percent of the variance for mothers but the F-value for the model was not significant. None of the variance was explained for sons and daughters-in-law which was not significant. A number of factors may help to explain the predictive capacity which emerged only for fathers but not for mothers, sons, or daughters-in-law.

Because of the age of members of the older generation, fathers and mothers are more likely to have been raised with an emphasis on traditional role orientations (Bigner, 1979; Lewis, 1986). Traditional role orientations emphasize the mothers' role as being "expressive" while fathers are expected to be "instrumental" (Parsons & Bales, 1955; Riegel, 1975). The primary function of the expressive role is to be the nurturer, mediator, comforter, and consoler for family members (Bigner, 1979; Zelditch, 1955). Fathers, in the instrumental role, are expected to be managerial and administrative in nature (Bigner, 1979; Zelditch, 1955).

Mothers are more likely to view their primary responsibilities over home and family life, while fathers are more likely to view their responsibilities as laying outside the affairs of home (Atkinson & Huston, 1984; Riegel, 1975). Being raised with this traditional value system, fathers are more likely to experience stress resulting from their labors on the farm/ranch operation while mothers are more likely to experience stress resulting from home and family issues. Although the farm/ranch operation is likely to be a source of stress for fathers, it is also likely to be a source of satisfaction and fulfillment as is the home environment for mothers (Parsons & Bales, 1955).

From a developmental perspective, Erickson (1968) stated that individuals in the later years of life are likely to be in the developmental stage of "integrity vs. despair." This stage involves the process of evaluating the events and accomplishments of one's life in order to find a sense of satisfaction and fulfillment. Achieving a sense of integrity means to have lived authentically and meaningfully so an individual can accept old age with dignity. Members of the younger generation are in the life cycle development stage of "generativity vs. self-absorption." This stage is characterized by a push for productivity and accomplishment as one considers the present and looks to the future.

Fathers in the sample may be in a position of coming to a sense of closure with their life's work. The farm/ranch operation is likely in the process of being transferred to members of the younger generation with the responsibilities of the farm/ranch, that the father held for many years, now being shared (Marotz-Baden, 1986). Fathers are likely to feel a sense of relief that the responsibilities and burdens of the farm/ranch operation are no longer his alone (Cobb, 1976; Granovetter, 1973; Pratt, 1976). Anticipating an exit from the farm/ranch operation, fathers may be looking back on their work on the farm/ranch. Low stress levels for fathers in the present study may indicate that fathers view the farm/ranch operation as meaningful and fulfilling.

The predictive success of the model for fathers in the present study may also indicate a positive view of their relationships with their wives and the force of that relationship to ameliorate the effects of stress. In anticipating their closure from the farm/ranch operation, fathers may be looking forward to being with their wives and becoming more involved in home and family life (Chickering & Havighurst, 1981). Thus, fathers may view their marital relationships as a more significant part of their lives. Marital, family, and home matters are likely to become more important for fathers in the later stages of life (Chickering & Havighurst, 1981).

Mothers are in the same developmental stage as their husbands; however, their primary responsibilities may have concerned home and family life (Parsons & Bales, 1955; Riegel, 1975). Home responsibilities are not coming to the same closure for mothers as the farm/ranch responsibilities are for fathers. There remains a great deal of parental obligation because at least one son and his spouse and children live near and are involved with the farm/ranch operation. In addition, the household responsibilities are continuous. Mothers are also more likely to feel a responsibility to keep in touch with family members through letters, telephone calls, and visits than are fathers (Bahr, 1974; Rosenthal, 1985). Mothers are likely to view their responsibilities with home and family as an ongoing process. As a result, mothers may be experiencing stress resulting from their responsibilities in the family in a way that fathers, who have not been socialized to behave or to feel responsible for home and family life, do not experience from family life.

The variables of marital cohesion, length of time married, and household dependents reflect home and family responsibilities and were not significant as predictors of stress for mothers in the present study. Home and family responsibilities may provide mothers with a sense of usefulness and meaning; however, they also represent responsibilities for mothers. Not having this aspect of

their lives decrease, mothers are less likely to experience the sense of closure and final fulfillment with their lives that their husbands may be experiencing.

The levels of stress experienced by both members of the older generation resulted in a significant negative relationship between stress and their satisfaction with their levels of income. This may stem from being in a position of looking back on their financial history and being able to see the results of their labors. Although mothers may feel less responsible for the household income, they may see it as a way to achieve material items for the home. Having had approximately 35 years of married life together, many household necessities and luxuries are likely to have been purchased. As a result, fathers and mothers may perceive their income satisfaction as contributing to low levels of stress (i.e., inversely related to stress).

Additionally, age cohort may explain the statistically significant relationship between stress and income satisfaction for both members of the older generation. Members of the older generation are more likely to have been raised during the era of the great depression. They also have experienced rationing during World War II. From their perspective, the financial circumstances they are experiencing now may be difficult, but not as difficult as they have experienced in the past.

Members of the younger generation are likely to have been raised during the more prosperous years of the fifties and sixties. From their perspective, today's financial circumstances are difficult because they have never experienced the extreme financial difficulties the older generation has experienced. The experiences and perceptions associated with being raised in different eras of time (i.e., age cohort) may explain the significance of income satisfaction as a predictor of stress for fathers and mothers, and the non-significant relationship of income satisfaction as a predictor of stress for sons and daughters-in-law.

This study was primarily concerned with variables related to marital and household demands of two-generation farm/ranch families as predictors of stress. The model used in the present study was not found to predict stress for sons. Developmentally, sons are attempting to establish themselves and achieve a sense of productivity and accomplishment (Erickson, 1968). This developmental stage may promote higher levels of perceived stress for sons in a manner that renders the four predictor variables tested in the present study relatively unimportant.

From the results reported for sons, it appeared that stress resulting from two-generation farm/ranch operation may come from sources outside the nuclear family system. Stress was not explained by marital cohesion, length of

time married, income satisfaction, or number of household dependents. Sons may be feeling an ever increasing responsibility over the farm/ranch as their fathers exit the operation. This increased responsibility may account for stress experienced in the two-generation farm/ranch operation (George, 1980; Hill & Joy, 1979; Neugarten & Hagestad, 1977). As the responsibilities over the farm/ranch operation increase, the level of stress is likely to increase. Increased stress levels for sons may not be accounted for with the family measures used in the present study. Other measures of marital and family functioning in relation to living and working closely with family members may need to be developed.

Daughters-in-law also appear not to be experiencing stress related to the variables in the present study. Although not statistically significant for the purposes of this study, a standardized regression coefficient of $-.25$ on the marital cohesion score for daughters-in-law may reflect the daughters-in-law's support from the marital relationship. The marital cohesion score for daughters-in-law is significant at the $p < .07$ level (see Table 9, p. 51) which may indicate their being the only member of the two-generation farm/ranch operation who was not genetically related to the other family members. Daughters-in-law married into the family system. They may be experiencing feeling of not belonging and thus perceive their marital

relationship as a stabilizing influence and as a connecting link into the two-generation family system (Duvall, 1954; Marotz-Baden, 1987). Factors contributing to two-generation farm family stress for daughters-in-law are not accounted for in the variables of marital cohesion, length of time married, number of household dependents, or income satisfaction.

Members of the younger generation are likely to have less traditional role orientations than members of the older generation (Bigner, 1979). Less traditional gender role orientations may result in a shared feeling of responsibility between husbands and wives of the younger generation (Ross, Mirowsky, & Huber, 1983; Turner, 1982). As a result, both sons and daughters-in-law may be experiencing stress from the same sources outside their marriage. As members of the younger generation assume more responsibilities over the farm/ranch operation, the stress may impact both sons and daughters-in-law in the same ways or at least in less gender-related ways than was true for the older generation.

Fathers, mothers, and sons are more likely to have been living and working with the current farm/ranch for a greater length of time than daughters-in-law. Thus, daughters-in-law may be experiencing increased stress as a result of being unfamiliar with that particular family farm/ranch operation. Being unfamiliar with the procedures

of the farm/ranch operation may be more stressful for her than for her husband.

Implications for Research

The present study was conceptualized as an exploratory study. It answered some basic questions about Montana's two-generation farm/ranch sample. It also invites further research to clarify questions that it raised.

The purpose of this study was to examine two-generation farm/ranch families. In doing so, 70% of the original 253 respondents were not eligible because they did not have an intact older and an intact younger generation. Only 27% of the families met the criteria. By selecting families where there was an intact older generation and an intact younger generation, families who are experiencing greater amounts of stress may have been eliminated. The families in the present study may have had material circumstances or monetary resources that ameliorated stress compared to those who were excluded from the sample. They may have also developed coping mechanisms which act to reduce stress for family members as a result of being a two-generation farm family. Alternatively, it may be that those families who choose to operate the farm/ranch as a two-generation operation may have had some inherent pre-disposed characteristics which also act as mechanisms to reduce stress for family members.

The size of the sample in the present study restricted the types of analyses that could be employed. It is also likely that a larger sample size would have resulted in a more accurate representation of the results of this study to members of two-generation farm families. Future research should collect samples that can overcome the limitations associated with the kind and smaller sample sizes employed in the present study.

Two-generation farm families in the present study need to be compared to other types of farm families in order to determine the differences and similarities of stress and coping. One generation farm families or farms operated by siblings may reveal differences or similarities that would help to explain the nature of stress and coping for two-generation farm families. This may also clarify mechanisms which enable two-generation farm families to adapt and cope to stress or which place some families at greater risk.

The present study found that stress levels for members of the younger generation are higher than stress levels for members of the older generation but did not explain mechanisms or reasons for the higher stress levels. The differences in stress levels between generations has only partially been explored by the present study. Further research is needed to clarify the nature of factors influencing stress experienced between generations.

Studies exploring each of the five factors of the Farm Family Stress scale may reveal insights into the nature of stressors experienced by two-generation farm families (Marotz-Baden, 1986).

The present study also raised questions about having farm family members respond to "how disturbing is the situation" as opposed to "how stressful is the situation." The differences in perceptions of "disturbing" and "stressful" as used on the Farm Family Stress Scale must be addressed and clarified in further research.

The present study revealed that approximately two-thirds of the sample were experiencing low levels of stress. One-third of these individuals were experiencing at least moderate levels of stress. Further research on the differences between low stressed individuals and moderately or more stressed individuals may reveal the nature of stress and the dynamics of those families where at least moderate levels of stress are being experienced. Longitudinal investigations of these families may provide information about farm/ranch success or failure based on the level of stress being experienced.

The present study investigated farm/ranch families at a time when the families were jointly sharing the responsibilities of the farm/ranch. Before entering into the operation with other family members, one family may have been solely responsible for the farm/ranch operation.

When the older generation exits the operation, the younger generation will then have responsibility for the farm/ranch operation. Stress levels may increase when decisions and control are not shared or stress levels may decrease because decisions, authority, and roles are clearer in one family farm/ranch operations. To more completely understand the results of the present study, an understanding of the overall developmental nature of two-generation farm/ranch operations and the impact on family members is needed.

The nature of two-generation farm families requires careful selection of measures of family and marital functioning. A true measure of marital cohesion (i.e., in preference to the measure of marital consensus) in relation to family boundaries would be useful to understand the nature of marital relationship in the two-generation operation. Additional measures such as social integration, both among family members and outside the family, may indicate the sources of support and strength for family members. The Farm Family Stress scale was specifically designed to measure stress resulting from two-generation farm/ranch operation. Other measures specific to two-generation farm families may need to be developed in order to examine the dynamics of these families.

The present study utilized the length of time married as a predictor of stress. It may be more appropriate to

examine age as a predictor of stress. This will allow researchers to more closely examine the age cohort of family members. Understanding the environmental, political, and historical circumstances surrounding an individual's life may reveal valuable information about their perceptions of stress and resources for coping with stress.

The nature of the two-generation farm/ranch sample requires careful selection of statistical procedures in order to meet statistical assumption and assure independence when examining mean scores. One possible way to gain greater insight into the dynamics of these families is to examine each family individually. Through the use of non-parametric statistics (e.g., McNemers tests, sign tests, Wilcoxon matched-pairs sign ranked tests), families may be examined as the unit of analysis rather than grouping people by position in the family. This type of statistical procedure invites a look at the internal dynamics of each two-generation farm/ranch family. Research on the internal structure and dynamics of individual families may reveal the stressors these families experience and transmit to each other and the resources these families employ to cope with stress. An examination of individual households may reveal significant relationships between the variables used in the present study and farm family stress.

The present study was conceptualized using the double ABCX model of stress and crisis in order to understand the nature and extent of stress present when families live and work closely together. In discussing the results of the present study a developmental model appeared to be more appropriate for explaining the dynamics of the two-generation farm families in the Montana sample rather than a model of stress and crisis. Further research should explore the developmental nature of individuals and couples who operate the two-generation farm/ranch.

In addition to quantitative measures, qualitative measures may provide a valuable foundation for understanding individuals in the two-generation operation. Rather than exploring farm family members through quantitative measures based on educated assumptions, careful attention to the cognitive and emotional processes of these individuals based on personal interviews should form the bases upon which other types of quantitative research are developed. Interviews with family members may reveal the thoughts, concerns, and sources of support for these individuals.

Implications for Public Policy and Practitioners

The present study was an exploratory study of two-generation farm/ranch families. Although the results are speculative in nature, the present study has some

implications for those who form public policy and those who provide direct services to farm families.

One aspect of the present study that may have implications for practitioners and public policy makers is the level of stress experienced by two-generation farm/ranch families. Results from this study indicate that stress levels were low. This may indicate that these families have developed coping mechanisms which enable them to cope in situations which may appear to others as stressful. The coping mechanisms which family members employ may indicate a strength rather than a weakness. Professionals who seek to intervene with these families must focus on close family unity as an asset rather than an obstacle. This is likely to be more in line with the perceptions of these families. Rather than assuming that these families are stressed, an accurate assessment must be determined before intervention is made.

In providing services for these families, public policy makers may need to recognize the developmental nature of the two-generation farm/ranch operation. The stages of transfers include a period when the older generation is primarily responsible for the farm/ranch operation. As the younger generation becomes involved with the operation, the responsibilities are shared. When the older generation exits the operation, the responsibilities rest with the younger generation. This study investigated

farm families when shared responsibilities appeared to result in lower stress levels. Counselors and educators who understand the developmental nature of two-generation farm families are more likely to assist family members throughout their lives as stress levels fluctuate.

Public policy programs will likely be more effective if developed on a local level where policy makers, therapists, and educators have direct knowledge of the specific issues effecting these families. Policy programs should emphasize effective strategies for transferring the farm assets. Educational programs focusing on techniques of financial and personnel management on the farm operation may prevent unnecessary farm/ranch failure.

Therapists and counselors who become involved with two-generation farm families must deal with the multi-generational issues of family members. Therapists must be well trained with a thorough knowledge of family systems theory before attempting to intervene with two-generation families. Educators would also be well advised to understand concepts of individual and family life span development before attempting to teach family members. Many professional training programs in counseling and education give insufficient attention to the basic issues that form the foundation of family interaction for members of farm or any other kind of families. Marriage and family therapists (e.g., American Association for

Marriage and Family Therapy clinical members) and family life educators (e.g., National Council on Family Relations Certified Family Life Educators) should be sought to assist members of two-generation farm families.

Intervention programs must be well planned in order to address the multiple issues of two-generation farm/ranch transfer. Before any program is implemented, policy makers, educators, and therapists must understand the dynamics of these families. Rather than assuming that educators and professionals are the most qualified group to determine the problems of these families, care should be taken to include members of these families in program development and the implementation of public policy. Members of these families likely understand many aspects of the nature of farm families better than educated professionals. Their input should be considered.

Limitations

The major limitation of the present study is that the results can be generalized only to a small portion of the population. This study cannot be generalized to those families who operate the farm/ranch as a single family operation or even as a one generation/multiple family operation (e.g., sibling household business). This limitation eliminates a number of families who may be

experiencing stress as a result of the farm/ranch operation, in particular, the single family business.

The requirement for sampling independence, necessary for multiple regression, prevents the analysis of differences among family members. In order to assure independence, each family member was analyzed separately.

Statistical procedures employed in the present study may provide different results if a larger sample population is used. This study is limited by having a small sample size which may inhibit the power of multiple regression to adequately predict stress in two-generation farm families.

Summary

The central purpose of this study was to provide greater insight into the nature of two-generation farm families. This study examined variables related to home and family life as predictors of stress for members of two-generation farm/ranch families. The variables of marital cohesion, length of time married, number of household dependents, and income satisfaction were examined as predictors of stress for fathers, mothers, sons, and daughters-in-law. Multiple regression analyses examined each variable for significance as a predictor of stress for each family member.

Members of the two-generation sample reported relatively low levels of farm/ranch stress. The predictive

capacity of the study was significant for marital cohesion, length of time married, and income satisfaction among fathers. The predictive capacity for mothers was not significant; however, income satisfaction was found to be significantly related to two-generation farm family stress for mothers. The predictive capacity for sons and daughters-in-law was not significant. The results revealed a unique constellation of circumstances contributing to stress for members of two-generation farm families apparently related to gender but primarily to generation.

The results may be due to the developmental nature of family members and gender role orientations. Further research utilizing more accurate measures is needed to fully understand the results of the present study. Other statistical procedures may provide greater insight into the nature of stress and coping for these families. The results of this study have some implications for those who work with farm families and formulate public policy to deal with issues relevant to farm families.

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APPENDICES

APPENDIX A

QUESTIONNAIRE ITEMS

STRESS OF A TWO-GENERATION FARM FAMILY

There are many situations which can cause stress in two-generational farm families. Following is a list of items that other farm families have told us cause stress for them. If these have occurred in your two-generation farm family in the last two years circle the appropriate number, 1, 2, or 3. Also circle the number showing how disturbing it was to you.

	Did this situation occur in the last two years?			How disturbing is this situation?				
	SELDOM	SOMETIMES	FREQUENTLY	NOT	SLIGHTLY	MODERATELY	QUITE	EXTREMELY
a. Difficulty learning to work together as a team	1	2	3	1	2	3	4	5
b. Not having a written agreement on farm future	1	2	3	1	2	3	4	5
c. Differences in child rearing practices between generations	1	2	3	1	2	3	4	5
d. No direct influence over the farm operation	1	2	3	1	2	3	4	5
e. Farm taking priority over family	1	2	3	1	2	3	4	5
f. Different attitudes about amount of time invested in work	1	2	3	1	2	3	4	5
g. Living with tight money	1	2	3	1	2	3	4	5
h. Too much contact between family members	1	2	3	1	2	3	4	5
i. Fear of family members using economic clout	1	2	3	1	2	3	4	5
j. Disagreements over money expenditures	1	2	3	1	2	3	4	5
k. Other generation wants to influence us more than we want them to	1	2	3	1	2	3	4	5
l. Feeling like labor rather than management	1	2	3	1	2	3	4	5
m. Not enough time to be with children or grandchildren	1	2	3	1	2	3	4	5
n. Favoritism showed to certain family members	1	2	3	1	2	3	4	5
o. Whole family not involved in decision making	1	2	3	1	2	3	4	5

This is a continuation of the two-generation farm family question.

	Did this situation occur in the last two years?			How disturbing is this situation?				
	SELDOM	SOMETIMES	FREQUENTLY	NOT	SLIGHTLY	MODERATELY	QUITE	EXTREMELY
p. Receive negative criticism from family	1	2	3	1	2	3	4	5
q. Anger toward other genera- tion displaced on spouse	1	2	3	1	2	3	4	5
r. Not doing as well as neighbors	1	2	3	1	2	3	4	5
s. Not really being a part of the operation	1	2	3	1	2	3	4	5
t. Not being able to talk about personal and farm concerns	1	2	3	1	2	3	4	5
u. One member wanting to take more risks than others	1	2	3	1	2	3	4	5
v. As a couple, not being completely on our own	1	2	3	1	2	3	4	5

CHIEFTAIN BOND
50% COTTON FIBER

THE FOLLOWING QUESTIONS ARE ABOUT YOUR PERSONAL SATISFACTION

1. Check the dot on the scale below which best describes the degree of happiness, everything considered, of you present marriage. The middle point, "happy," represents the degree of happiness which most people get from marriage, and the scale gradually ranges on one side to those few who are very unhappy in marriage, and on the other, to those few who experience extreme joy or felicity in marriage.

VERY UNHAPPY	HAPPY	PERFECTLY HAPPY
-----------------	-------	--------------------

State the approximate extent of agreement or disagreement between you and your mate on the following items. Please check each column.

	ALWAYS AGREE	ALMOST ALWAYS AGREE	OCCA- SIONALLY DISAGREE	FRE- QUENTLY DISAGREE	ALMOST ALWAYS DISAGREE	ALWAYS DISAGREE
2. Handling family finances	_____	_____	_____	_____	_____	_____
3. Matters of recreation	_____	_____	_____	_____	_____	_____
4. Demonstration of affection	_____	_____	_____	_____	_____	_____
5. Friends	_____	_____	_____	_____	_____	_____
6. Sex relations	_____	_____	_____	_____	_____	_____
7. Conventionality (right, good, or proper conduct)	_____	_____	_____	_____	_____	_____
8. Philosophy of life	_____	_____	_____	_____	_____	_____
9. Ways of dealing with in-laws	_____	_____	_____	_____	_____	_____

10. When disagreements arise they result in:

1. HUSBAND GIVING IN
2. WIFE GIVING IN
3. AGREEMENT BY MUTUAL GIVE AND TAKE

11. Do you and your mate engage in outside interests together:

1. ALL OF THEM
2. SOME OF THEM
3. VERY FEW OF THEM
4. NONE OF THEM

12. In leisure time do you generally prefer:

1. TO BE "ON THE GO"
2. "TO STAY AT HOME"

Does your mate generally prefer:

1. TO BE "ON THE GO"
2. "TO STAY AT HOME"

13. Do you ever wish you had not married?

1. FREQUENTLY
2. OCCASIONALLY
3. RARELY
4. NEVER

14. If you had your life to live over, do you think you would:

1. MARRY THE SAME PERSON
2. MARRY A DIFFERENT PERSON
3. NOT MARRY AT ALL

15. Do you confide in your mate:

1. ALMOST NEVER
2. RARELY
3. IN MOST THINGS
4. IN EVERYTHING

PLEASE INDICATE YOUR LEVEL OF SATISFACTION FOR THE FOLLOWING ITEMS

How satisfied are you?
(circle your answer)

	EXTREMELY DISSATISFIED	VERY DISSATISFIED	SOMEWHAT DISSATISFIED	SOMEWHAT SATISFIED	VERY SATISFIED	EXTREMELY SATISFIED
a. Your level of income	1	2	3	4	5	6
b. Money for family necessities	1	2	3	4	5	6
c. Your ability to handle financial emergencies	1	2	3	4	5	6
d. Amount of money you owe (mortgage, loans, credit cards)	1	2	3	4	5	6
e. Level of savings	1	2	3	4	5	6
f. Money for future needs of family	1	2	3	4	5	6

CHIEFTAIN BOND
50% COTTON FIBER

THE FOLLOWING QUESTIONS WERE ASKED ONLY OF MOTHERS AND DAUGHTERS-IN-LAW

THE FOLLOWING QUESTIONS ARE ABOUT YOUR HOUSEHOLD MEMBERS

Start with yourself, please list the members of your household (everyone who lives with you) by their relationship to you. Circle sex, and note their age on their last birthday for each person. (Please list as spouse, partner, parent, friend, child, stepchild, border, etc. Please do not list by name.)

Relationship of Household Members	Sex		How old was _____ on his/her last birthday?
	M	F	
Myself	M	F	_____
_____	M	F	_____
_____	M	F	_____
_____	M	F	_____
_____	M	F	_____
_____	M	F	_____
_____	M	F	_____

If more space is needed,
please put ages here:

Males	_____	_____	_____	_____
Females	_____	_____	_____	_____

PLEASE RESPOND TO THE FOLLOWING QUESTION

If married, how long have you been married to your present spouse?
(circle number of correct response)

1. LESS THAN ONE YEAR
2. _____ YEARS (please note the number of years married)

APPENDIX B

RELIABILITY ANALYSIS

Table 14. Reliability Analysis for the Income Satisfaction Scale.

Domain Sampled	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Alpha if Item Deleted
Satisfied with Income Level	18.57	24.74	.6362	.8484
Satisfied with Money for Necessities	18.26	25.75	.6603	.8472
Satisfied with Money for Emergencies	18.32	25.73	.6167	.8524
Satisfied with Amount of Money Owed	18.49	22.12	.6081	.8610
Satisfied with Level of Savings	19.15	21.64	.7469	.8279
Satisfied with Money for Future Needs	19.08	22.75	.7756	.8234

N = 168

Alpha = .87

APPENDIX C

HISTOGRAMS

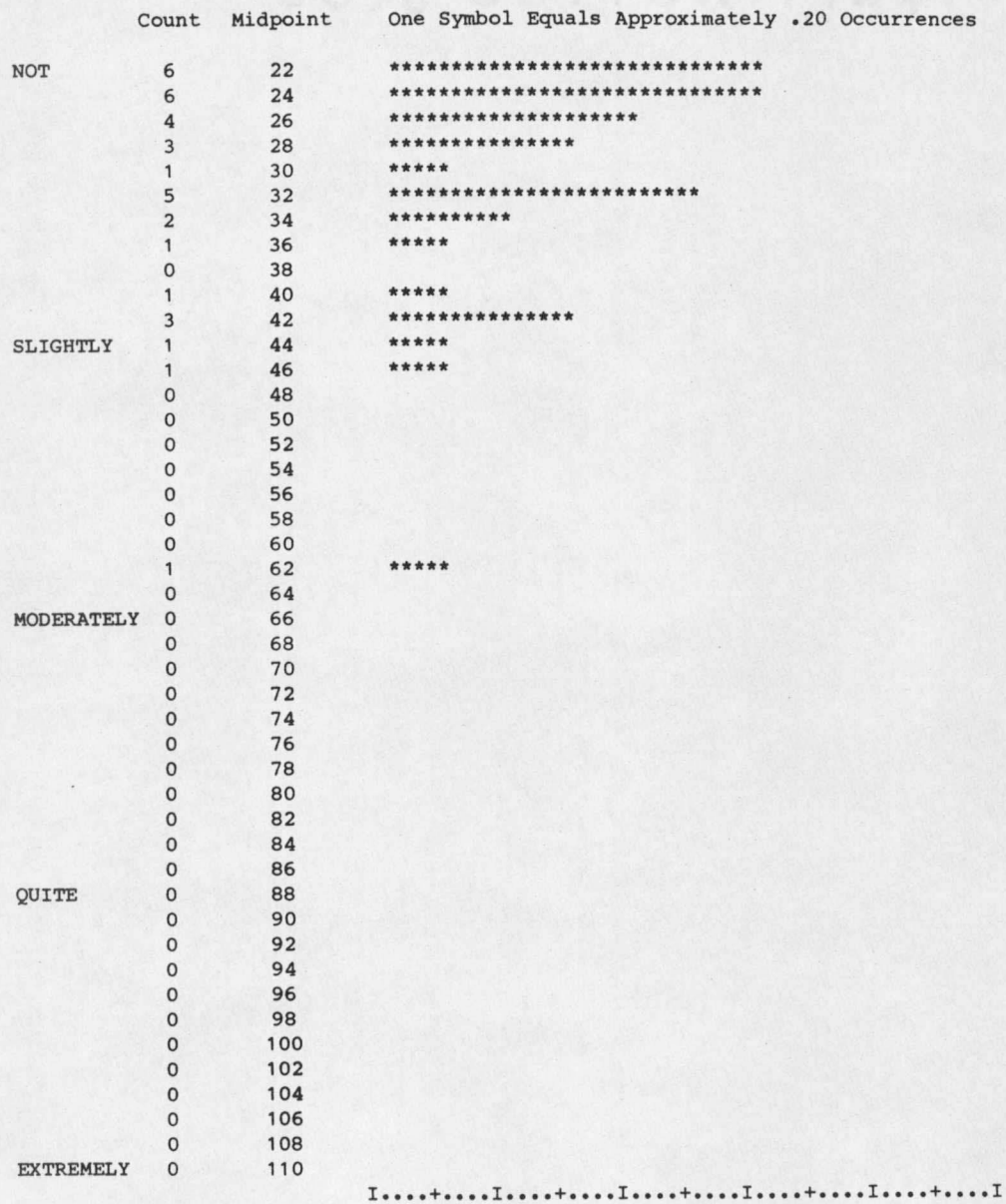


Figure 2. Histogram Frequency for the Farm Family Stress Scale for Fathers.

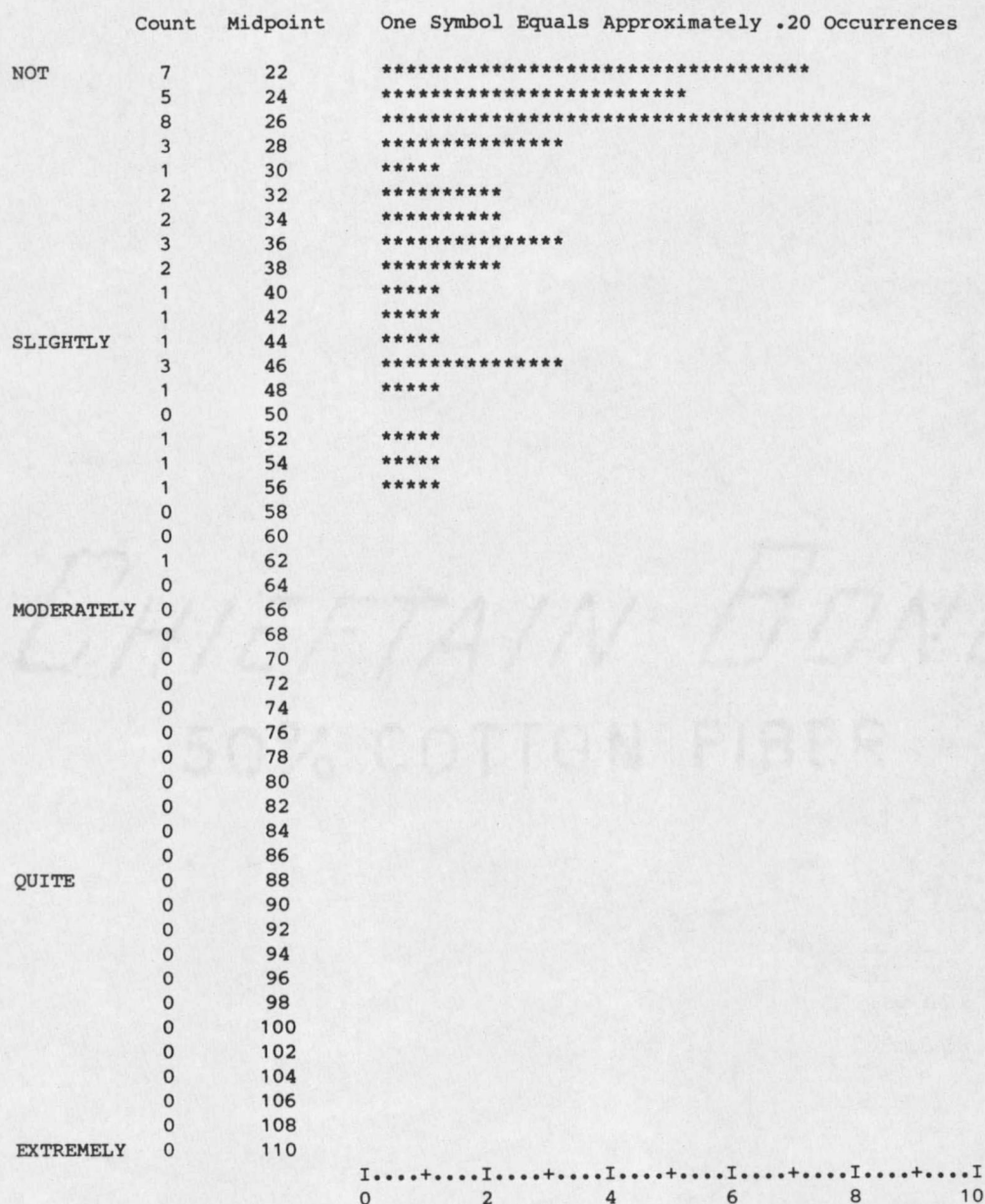


Figure 3. Histogram Frequency for the Farm Family Stress Scale for Mothers.

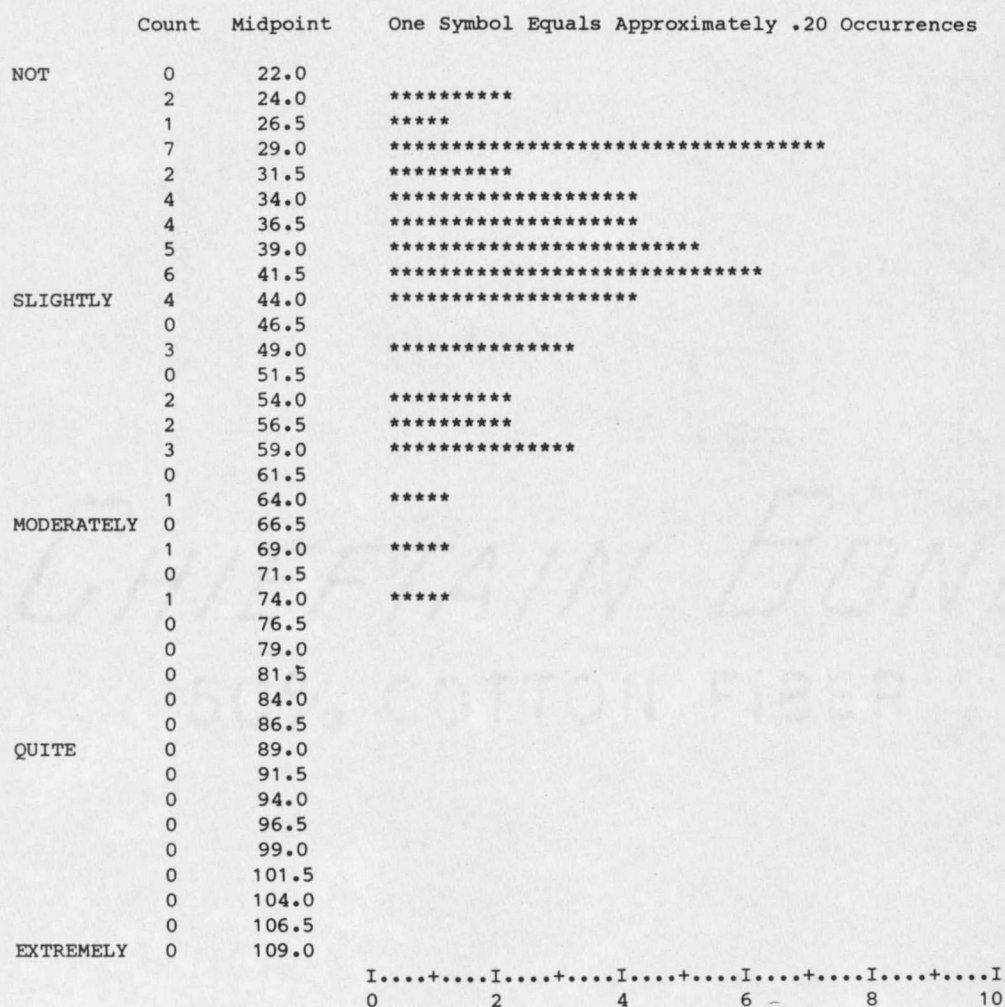


Figure 4. Histogram Frequency for the Farm Family Stress Scale for Sons.

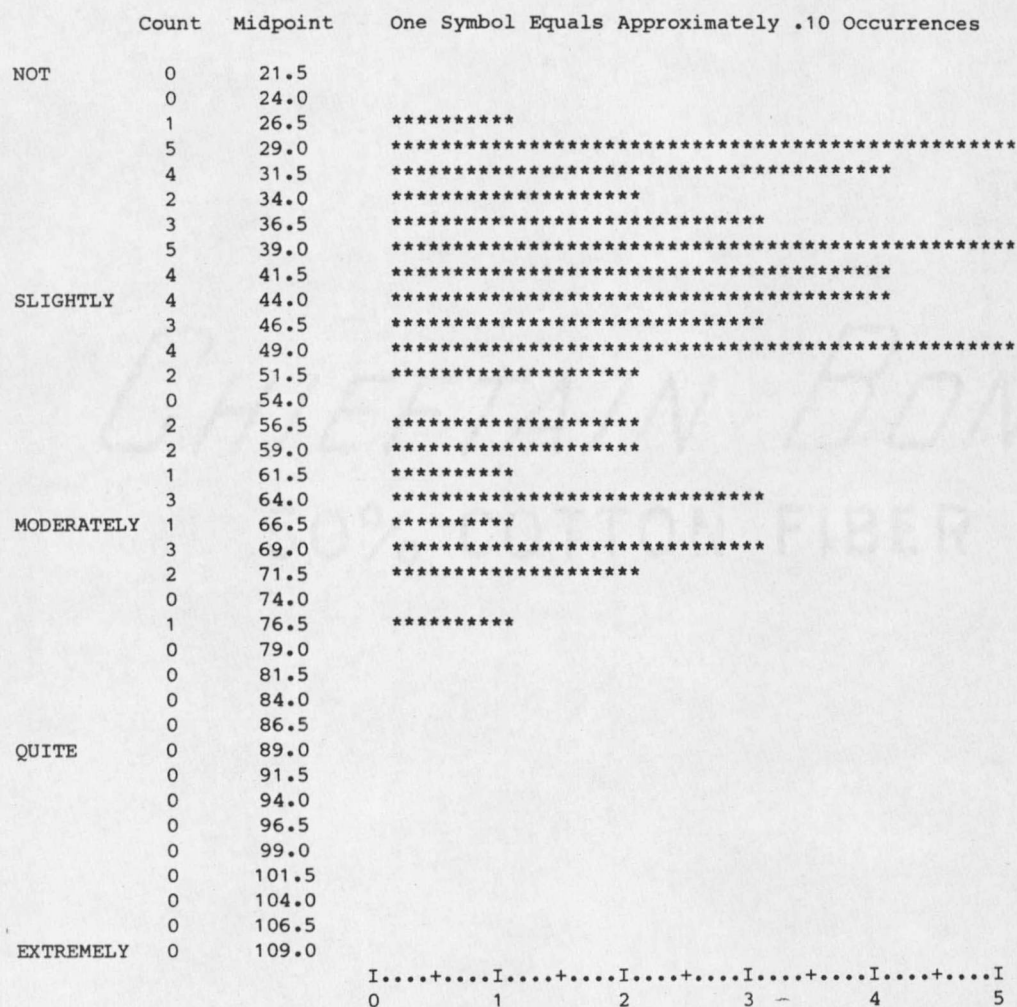


Figure 5. Histogram Frequency for the Farm Family Stress Scale for Daughters-in-law.

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