RURAL GRANDPARENTS RAISING GRANDCHILDREN:
PREDICTORS OF PARENTAL STRESS

by

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Marcia Anne Conway

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DEDICATION

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ABSTRACT

The number of grandparents raising grandchildren has increased dramatically in the West and throughout United States in recent years. Although research on grandparent caregivers is increasing, there remains little research that addresses the challenges and issues facing grandparents raising grandchildren in rural locales. To address this shortcoming, this study examines the parental stressors experienced by rural grandparent caregivers and explores individual, parental, and community level factors that may be related to stress including length of time in the primary caregiver role, grandparents’ income level, psychological well-being, parental confidence, and perceived social support.

Eighty-three grandparents raising their grandchildren were recruited for this study from across the state using purposive and snowball sampling techniques. Respondents were asked to fill out a survey about their experience raising their grandchild(ren). A total of forty-four grandparents participated in this study.

Data indicate that as grandparents continue in the parenting role, their parental confidence and perceived social support increases. Significant differences were noted between American Indian and Caucasian caregivers. For example, American Indian caregivers reported experiencing significantly more time in the caregiving role, reported lower incomes, and experienced more depressive symptoms than their Caucasian counterparts.

The best predictors of parental stress were depression and parental confidence. As depression increased, stress likewise increased. As parental confidence increased, parental stress decreased. These findings hold important implications for researchers, practitioners, and policymakers.
INTRODUCTION

Today grandparents are performing a complex array of functions within their families. It was not that long ago – just a few generations back – when grandchildren might not have known their grandparents. Currently, it is not uncommon for grandchildren to not only know their grandparents but to also have close, intimate relationships with them (Skolnick & Skolnick, 1994). It is also increasingly common for grandparents to provide a significant caregiving function for their grandchildren. Some grandparents may provide child care to grandchildren while both mothers and fathers (regardless of marital status) work in the labor market. Others have increasingly begun taking over primary caregiving when their own children cannot perform the parental role due to a variety of circumstances. Clearly, grandparenting has become a complex, diversified role within families. Before further elaborating on grandparents raising grandchildren, the historical background of grandparent caregiving is reviewed as well as the recent trends of this new family constellation.

Historical Background

While different cultures have diverse histories regarding grandparental roles, grandparents from the majority White culture have only recently been involved in the care of their grandchildren through extended family networks. Research by Cherlin and Furstenberg (1994) indicates that grandparent involvement in the lives of their grandchildren is a post-World War II phenomenon, particularly for those in the majority
culture. The change in grandparent roles appears to be a result of longer life expectancy and increased functioning in the later years. Longer life expectancy has placed grandparenthood into a facet of middle age rather than old age. This trend toward longer life expectancy has been furthered by technological advances in medical care, immunizations, and improved overall health care.

Research indicates that the greatest decline in the mortality rate of Americans occurred in the 20th century (Cherlin & Furstenberg, 1994). As individuals live longer, families continue to adapt to the increased participation of older generations within family networks (Bengston & Robertson, 1985; Brubaker, 1990; Morrow-Kondos et al., 1997). The lengthening of the lifespan makes it possible for grandparents to perform in this role for three to four decades of adult life (Kornhaber, 1996; Kornhaber & Woodward, 1981; Waldrop & Weber, 2001). Thus, grandparenthood is dynamic, malleable, and ever-evolving as the presence of grandparents and great-grandparents in the lives of grandchildren continues to increase.

Grandparents Raising Grandchildren: Current Trends

The number of grandparent headed households has been increasing in recent years (U.S. Census, 2000b). While grandparent involvement in raising grandchildren is not a new phenomenon in America, the trend of a grandparent serving as primary caregiver to their grandchildren is. This is especially true among White families. In other cultures, such as African-American or American Indian cultures, familial roles have been performed more fluidly, where biology was not the only determinant of one’s role
(Billingsley, 1992). In many minority families, roles have been shifted from parent to grandparents, aunts and uncles, or even fictive kin, in order to meet the needs of all family members (Billingsley). What appears different today, however, among White and non-White families alike, is the primary caregiving function performed by grandparents in the absence of the children’s parents is due to multifaceted circumstances, including drug or alcohol addiction, incarceration, and economic factors (among others; Bullock, 2004; Cox, 2003; Minkler, M., Fuller-Thomson, E., Miller, D., & Driver, D., 1997).

In 2000, close to six million children were reported to live in households with their grandparents, which represented a 29.7% increase over the number reported in the 1990 census (U.S. Census, 2000b). Furthermore, grandparent headed households continue to be the fastest growing type of household, and have been since 1990 (Bryson, 2001; Bullock, 2004). Western states in particular are experiencing a dramatic increase in the proportion of grandparent headed households. Of the states which have shown an increase in grandparent headed households, 14 of the top 20 are in the west. Between the years 1990-2000, these family configurations have grown from a low of 43.1% in South Dakota to a high of 108.6% in Nevada (U.S. Census, 2000b). Montana, the rural western state in which this study was conducted, has experienced a 53.8% growth in the proportion of grandparent headed households in the same 10-year span, which ranks it ninth in the nation (U.S. Census, 2000b).

As the number of grandparents raising grandchildren (GRG) has become more prevalent within the past decade, the topic has likewise received growing attention. Researchers are beginning to elucidate our understanding of the reasons why grandparents return to primary parenthood and the challenges they face. However, little is
known about the functioning and well-being of grandparents and their grandchildren in these new family systems, particularly in rural areas. Moreover, there are few policies or programs in place specifically addressing grandparent caregivers and how to best meet their needs.

**Reasons Grandparents Return to Parenting**

Over the past decade, researchers have found a wide variety of reasons why grandparents are called upon to care for their grandchildren. In most cases, researchers have found that grandparents do not choose to take on the role of primary caregiver (Bowers & Myers, 1999; Cherlin & Furstenberg, 1986; Hayslip et al., 1998; Jendrek, 1994); rather a series of events likely result in grandparents performing this unexpected role. For example, while in the past children who were abused and neglected by their parents were placed in foster care arrangements, today it is not uncommon for these children to be placed under their grandparent’s care. Stressors and diseases (e.g., chemical dependency and chronic illness) that render parents incapable of parenting also appear to result in GRG arrangements. Teen pregnancy, abandonment, parental death, parental incarceration, difficulties with finances, military deployment, divorce, and unemployment are other reasons why grandparents are raising their grandchildren (Weber & Waldrop, 2000). Typically, when asked why they are providing primary care, grandparents suggest that there were numerous factors that converged in their families necessitating grandparent intervention (Emick & Hayslip, 1999; Thomas, 1990).
Grandparents may take on the primary caregiver role on a temporary basis or may become permanent care providers for their grandchildren. In general, grandparents intervene as a last resort after family circumstances in the grandchild’s life have deteriorated and out of home placement is a consideration for the child (Bowers & Myers, 1999; McAdoo, 1990). Grandparents who are called upon to care for their grandchildren enter a double bind; they want to provide support for their child and grandchildren, but may be reluctant to interfere. As a result of this hesitancy, grandparents often step in only when a crisis occurs (Emick & Hayslip, 1999; Thomas, 1990).

Grandparents may feel ambivalent about their primary caregiver role and may feel that parenting at their particular life stage is “off-time,” or out of step with when they should be parenting in the course of a “normal” life cycle (Burton & Bengston, 1985; Jendrek, 1994; Landry-Meyer & Newman, 2004; Minkler & Roe, 1993). Parenting for a second time may be considered ambiguous because there is typically a lack of consensus regarding role norms, and roles outside the norms of society can be considered “roleless” (Landry-Meyer & Newman, 2004). However, it is important to note that role ambiguity may be lessening as the childbearing timeline of women expands. As it is becoming more common for women in their late 30’s, 40’s, and even 50’s to bear children, it may become less evident who is the biological parent and who is the grandparent in families. Nonetheless, for many grandparents not anticipating primary caregiving responsibility for their grandchildren, challenges remain when it comes to navigating through educational and social systems as a grandparent raising a grandchild.
Often, grandparents do not have custody or a legal relationship with their grandchild that is recognized by courts, schools, medical organizations, or other institutions of society. Without these affirmations of the parental role, many grandparents are left in limbo between accepting the responsibility for their grandchildren and societal acceptance of their role as parent. This role ambiguity may be reflected in the lack of support services for grandparents raising their grandchildren due to grandparents being unclear on the guidelines or social norms of the grandparenting role (Landry-Meyer & Newman, 2004).

**Challenges to Grandparents Raising Grandchildren**

Grandparents raising grandchildren are faced with considerable challenges in this off-time role including physical and emotional health concerns, financial issues, and legal concerns. Grandparents may experience feelings of loneliness and exhaustion which may stem from the complex combination of responsibilities and uncertainties that accompany parenting the second time around (Weber & Waldrop, 2000). Grandparents may have to wade through a variety of different systems in order to enroll the child in day care or school, apply for medical insurance, obtain financial assistance such as food stamps and welfare, and obtain custody or guardianship of the child. Navigating these systems is challenging for younger parents, and may be a barrier to intervention and support for middle aged and elderly caregivers.
Service barriers may also include difficulties accessing information. The internet is so common, and information is in abundance, yet grandparents may lack the computer literacy needed to access these resources (Bolt, 2000). In addition, grandparents on a fixed income may not be able to afford a personal computer which poses yet another barrier. Although libraries often have computers for use, in rural areas without public transportation, it may be difficult to find a way to these facilities. Rural areas, in particular, may lack funding necessary to provide computers to the public.

With recent cuts in state’s budgets, many community agencies may also lack the resources to provide services and specific programs for grandparent caregivers. Research indicates that there are inadequacies in programs to meet the needs of these families (Bullock, 2004; Health Systems Research, 1995; Mullen, 1995; Sands & Goldberg-Glen, 2000). Many programs have eligibility requirements that are not designed for grandparent caregivers. Therefore, accessing these services may be complicated and grandparents may be offered lower benefits because they are not the biological parents. Moreover, grandparents may not be adept at advocating for resources and policy initiatives to better meet their needs. This group may be reticent to seek assistance because of pride or a strong sense of stoicism. This viewpoint may be especially prevalent in rural communities where privacy and confidentiality are often difficult to maintain (Bullock, 2004; Wiegel & Baker, 2002).

According to the U. S. Census (2002), there are 6,053 children in foster care in Montana, and an additional 3,934 children in “kinship care” (the category used to classify grandparents raising grandchildren). If grandparents were being paid at the state rate for
foster care of $16.56 per day per child (the mean between $15.03 per day for newborns to children 12 years of age and $18.09 per day for children 13-18 years) that would amount to $65,147.04 per day, or $23,778,669.60 per year that the state would have to pay to grandparent caregivers (B. Stimatz, Foster Care Specialist, personal communication, April 20, 2004). It is possible that the state is reticent to recognize grandparents raising grandchildren because of the additional revenue required to fund these families. It is also possible that the government may be unaware that policy legislation is needed for these family forms (Bogenschneider, 2003), particularly in a frontier state such as Montana, where an ideology of individualism and “family as private” are strongly rooted.

However, as the demand for GRG support has begun to increase, and their numerous challenges have started to receive attention, grass roots efforts have begun to grow. These efforts typically provide support and advocacy to help alleviate some of the pressures and stressors faced by grandparent caregivers. Groups also provide education and legal advice for grandparent caregivers (Brookdale Foundation Group, n.d.; Minkler, Driver, Roe, & Bedeain, 1993; Sands and Goldberg-Glen, 2000). Although efforts are emerging to support the challenges facing grandparent caregivers, little is known about caregivers living in rural areas.

Additional Challenge of Rurality

GRGs residing in rural locales face unique challenges unlike their urban counterparts. Rural communities are defined as those in which the “population is under
1,000, with a low population density, a distance from urban areas, and a low degree of urbanization” (U.S. Census, 2000a, ¶ 5). These communities typically lack public transportation and have fewer services available for families compared to urban areas. Services that may be available in urban areas which may not be accessible in rural locales may include mental health services, specialized therapeutic care, specialized medical practices, low cost child care centers, support groups, and community food banks. Access to state or federal assistance may require a trip to the agency office which may be located in more populated areas of the county. In a large rural state like Montana, this trip could involve several hours of travel (Weigel & Baker, 2002). Likewise, access to medical care may be limited and specialized medical or therapeutic assistance may require traveling a great distance.

Issues of confidentiality may further constrain grandparents help seeking behaviors as in small communities there is a strong likelihood that an acquaintance or friend may be someone who provides care or assistance. Grandparents may be reluctant to reach out to others for help because they fear stigmatization or feel that their personal issues will be shared with others in the community (Weigel & Baker, 2002). In addition, many rural areas have succumbed to job loss and significant reductions in population as “their economies have struggled in the changing national and global marketplace” (Bullock, 2004, p. 46). As these communities depopulate, there are fewer options and less availability of informal social networks for elders as compared to those who live in urban areas (Bullock; Glasgow, Holden, McLaughlin, & Rowles, 1993).
Due to the range and severity of challenges facing grandparents, these caregivers are at risk of experiencing high levels of stress (Bullock, 2004; Harrison, Richman, & Vittimberga, 2000). In rural communities, it seems likely that the lack of resources and social isolation may compound grandparent stressors. However, to date, there is little research investigating stressors or correlates of stress among rural grandparents raising grandchildren.

**Purpose**

To address the current shortcoming of literature examining grandparents raising grandchildren in rural communities, this study examined the stressors experienced by rural grandparent caregivers and explored factors that may be related to parental stress. These factors include length of time in the primary caregiver role, grandparents’ income level, depression, parental confidence, and perceived social support. By furthering our understanding of grandparent caregiver stressors and the correlates of stress, it is hoped that more focused and specific supports and interventions may be developed and offered to grandparent caregivers. In addition, it is hoped that this research will shed light on an emergent family constellation – that of grandparents raising grandchildren in rural communities. These families experience unique circumstances that merit further attention by researchers, practitioners and policymakers alike.
Conceptual Definition of Terms

Dependent Variable

*Parental stress* was defined as the level of stress associated with the functions of providing primary care to children. For this study, parental stress was adapted to include grandparent caregiving (Berry, 1995).

Independent Variables

*Length of time in the primary caregiver role* was defined by the number of years and months a grandparent had been primary caregiver to their grandchild(ren). *Level of income* referred to the annual household income reported on 2002 income taxes. *Depression* was included as an indicator of psychological well-being. Depressive symptomatology included depressed mood, feelings of guilt and worthlessness, feelings of helplessness and hopelessness, psychomotor retardation, loss of appetite, and sleep disturbance.

*Parental confidence* was defined as parent’s perceived security in their knowledge and ability to parent their child effectively. *Perceived social support* was defined as assistance provided by network members such as family, friends, other parents, social groups, clergy, and community agencies. This variable also addressed whether or not grandparent caregivers felt they had someone to help in an emergency, someone to offer advice or moral support, and someone to relax with.
REVIEW OF LITERATURE

**Grandparents Raising Grandchildren**

Grandparents raising grandchildren (GRG) is a growing family form, becoming more prevalent throughout the United States (U.S. Census, 2000a.) As this family constellation continues to increase exponentially, focus should be concentrated on the needs of these families in order to provide support and resources to facilitate family functioning and well-being. At this time, however, there are few programs or services aimed specifically at helping the nearly six million grandparent-headed households in the United States, and researchers are just beginning to understand the complex and multidimensional issues surrounding GRGs.

Researchers have noted myriad factors leading up to grandparent caregiving. The following are some of the most common: children being removed from the parents due to child abuse or neglect, parental chemical dependency issues, chronic illness, parental immaturity, teen pregnancy, abandonment, death of a parent, difficulties with finances, military deployment, divorce, unemployment, and incarceration of parents (Weber & Waldrop, 2000). Each of these complex life events likely produces stress and added burden in the lives of grandparents and their grandchildren. To compound matters further, grandparents are caught in a dual role where they must be parents to their own children in addition to parenting their grandchildren off-time.
Grandparents who raise their grandchildren exemplify a dynamic and fluid life cycle, where roles and developmental tasks are completed off-time, or are disconnected from chronological age (though the range of parenting ages is quite broad today). Social norms and structure concerning role expectations are considered time disordered (Burton & Bengston, 1985; Landry-Meyer & Newman, 2004). Grandparents who are faced with the challenge of parenting the second time around may be confronted with role conflict, depression, and decreases in social support as their peers are no longer in the parental role (Burton & Bengston 1985; Fuller-Thompson et al., 1997; Jendrek, 1994). Such role confusion can cause stressors within the family system, and the resulting increase in stress may have negative effects on the grandparents’ physical and emotional health, in addition to depletion of family resources, resulting in potential crises (Boss, 2002; Hill, 1986).

According to Sands and Goldberg-Glen (2000), stress can be defined as “a psychological reaction of an individual to events or conditions that they perceive to be threatening” (p. 98). Stressors are changes to the individual or life event changes that have the capacity to generate psychological stress within the grandparent (Sands & Goldberg-Glen). Stress researchers recognize that significant life events can cause stress in the lives of individuals which can indirectly or directly affect others in the family system. Stress researchers also consider the accumulation of events, both normative and non-normative, anticipated and unexpected, volitional and non-volitional, and desired and unpleasant upon individuals (DeLongis, 1985; Lavee, McCubbin, & Olson, 1987) and families (Boss, 2002; Hill, 1973; McCubbin & Patterson, 1982).
Literature on caregivers is consistent in the assumption that becoming a parent again is difficult, complex, life-altering, and a stressful event for grandparents (Harrison et al., 2000). Understanding parental stress is especially salient to the topic of grandparents raising grandchildren. Parental stress can be affected by grandparents’ emotional well-being, role satisfaction, perceived stress, work/family stress, loneliness, anxiety, guilt, marital satisfaction, marital commitment, job satisfaction, and social support (Berry, 1995). It is important to not only consider the many stressors grandparents encounter, but also the interaction between these stressors at all levels and within all roles performed by grandparents.

There are a variety of parental stressors that grandparents raising grandchildren have in their daily lives, many of which are due to the complex life events that led to the children being placed in their homes. Like others in their life stage, older grandparents may also be faced with “on time” stressors such as health problems, retirement, and living on a fixed income (Bullock, 2004; Sands & Goldberg-Glen, 2000). In addition to the normative stressors of later stages in life, grandparent caregivers are likely to experience the “normal” stressors that parents encounter, as well as the stressors that are specifically related to the surrogate parenting role (Bullock; Sands & Goldberg-Glen). Research indicates that some of these additional stressors include increased time demands, strained relationship with spouse and family members, difficulties controlling grandchildren’s behavior, coping with generational differences in values, assuming a firm parental role, dealing with grandchildren with special needs, balancing employment and parenting responsibilities, high degrees of role restriction, social isolation, and financial difficulties (Bullock; Burton, 1992; Harrison et al., 2000; Kelley, 1993; Sands &
Goldberg-Glen; Stokes & Greenstone, 1981). Parental stress, and in particular, grandparental stress is a subject that should be examined from several different levels in order to fully understand the complex interactions of the stressors involved.

**Theoretical Framework Guiding this Study**

Grandparent caregivers who are experiencing stressors do not exist in a vacuum, but are influenced by the multiple contexts that surround the family. It is, therefore, imperative that this family form be considered from a theoretical framework that takes into account both internal and external factors. The ecological model is a particularly useful theoretical framework for understanding grandparents raising grandchildren in context because it recognizes the interaction between multiple variables at multiple levels or ecologies and suggests that we must examine these variables together to best understand the lived experiences of individuals and families in society (Bronfenbrenner, 1979).

The ecological theory’s primary assumption is that the environment and the individual are inseparable. Bronfenbrenner (1979) and others have suggested that we must understand families in all contexts and how the complex interactions of these contexts affect family life. The ecological model conceptualizes family and environmental interactions and relationships by representing an ecological system of interdependent parts and wholes (Bubolz & Satong, 1993; Zimmerman, 1995) in which
family members affect each other, other families, and the community (Katras, Zuiker, & Bauer, 2004).

When theorizing about grandparents raising grandchildren, several ecologies or contexts are salient including the individual, parental/familial, and community levels. Bronfenbrenner (1979) recognizes multiple layers extending beyond the community including cultural, political, economic, and historical contexts. Although it is important to recognize the multiple layers and complex contexts that affect GRG functioning, this study examines the contexts that grandparents are likely to have the most control in changing or influencing (Boss, 2002). Therefore, variables of interest represent individual, parental, and community contexts. Following is a review of the relevant literatures linking the variables of interest to parental stress.

**Individual Level Factors**

**Length of Time in the Primary Caregiver Role.** Little research on the topic of grandparents raising grandchildren has focused solely on the length of time grandparents spend in the caregiving role; however research by Minkler et al. (1997) indicates that one of the most at-risk subsets of grandparent caregivers are those who are new to the caregiving role. In their study, grandparents who had recently assumed responsibility for caregiving showed higher depression levels than those who had been in the role for an extended period of time (Minkler et al.)

Research by Landry-Meyer (2000) indicates that the average length of time grandparents provide care to their grandchildren is six years, often without legal custody.
The majority of grandchildren being parented by their grandparents are under the age of six, and the average number of children parented by a grandparent caregiver is two (Landry-Meyer). It can be speculated that there is a decreased level of stress among those grandparents who have had grandchildren in their care for longer periods of time because they have had longer to adapt to the role of parent and have been able to adjust themselves to a new lifestyle.

**Grandparent’s Level of Income.** Grandparents are often faced with providing for their grandchild(ren) on a fixed income. Research indicates that the average income for grandparent headed households with children present is under $20,000 (AARP, 2003). More than 38% of grandparents who are primary caregivers to their grandchildren are below the poverty line (Kirby & Kaneda, 2002). In comparison to other households, “grandmothers who are raising grandchildren are more likely to be poor, more likely to be receiving public assistance, and less likely to have health insurance” (Cox, 2003, p. 127).

Findings from several studies indicate that lack of resources, especially financial, is typically reported by grandparents as a major stressor (Bullock, 2004; Dowdell, 1995; Kelley, 1993; Kelley et al., 2000; Minkler & Roe, 1993). Older Americans typically see a drop in level of income as they reach retirement age. When a child is added to the household, the family often falls below the poverty line. At this point, the grandparent is forced to find a way to meet the needs of his/her new family, and plans for retirement are put on hold.

Grandparents may face many financial burdens: strain from additional expenses, poverty, legal representation, underemployment, and difficulty applying for
governmental assistance (Waldrop & Weber, 2001). Underemployment occurs when grandparents re-enter the workforce but are unable to secure a job or have a difficult time because employers see them as too old or unskilled in necessary areas (Waldrop & Weber). Many grandparents are near or past the retirement age and may not be physically capable of performing duties of a new position. Furthermore, older grandparents may not have the skill base to acquire a job that pays enough to make ends meet (Kirby & Kaneda, 2002). This issue may be compounded further by the lack of job opportunities in rural communities. Conversely, younger grandparents may be forced to quit jobs in order to provide full-time care for their grandchildren. Grandparents may gain self-worth and identity from their positions which may be diminished as they leave the workforce and take on the parenting role full-time (Bullock, 2004).

If a grandparent is the primary caregiver, and he/she needs to work due to fiscal need, he/she may have to find child care for the grandchild which can pose several problems. High quality child-care can be difficult to find, and the issue may be even more problematic for a grandparent who has little knowledge of the varied forms of child care available today. Cost is also an obstacle, if grandparents who have been out of the work force are relegated to work in a low paying job, and they have to find a way to absorb the cost of child care. Grandparents may harbor some resentment and feel as though they could provide better care for the child but feel they need to work for added income (AARP, 2003; Kirby & Kaneda, 2002). The financial responsibility associated with parenting presents significant stress for some grandparents on a fixed income. Research indicates that these grandparents are often at risk for depression and other social and emotional problems, and it has been noted that psychological distress increases when
family members have assumed significant care giving roles (Bullock, 2004; Burton, 1992; Fuller-Thompson et al., 1997; Goodman & Silverstein, 2002; Kellam, Ensminger, & Turner, 1977; Minkler et al., 1997). Based on the literature, it is speculated that a higher levels of income will be related to a lower levels of stress.

**Depression.** A third individual level variable that may be related to the functioning of grandparents raising grandchildren is depression. Minkler (1997), who has led the field in research related to grandparents raising grandchildren, found that GRGs who undertake the responsibility of raising grandchildren have increased levels of depression. Those who are primary caregivers are nearly twice as likely to have depressive symptoms. Bowers and Meyers (1999) conducted a study of grandmothers who were full-time caregivers (N=23), part-time caregivers (N=33) and non-caregivers (N=45) primarily in Virginia. Those in the caregiving role had grandchildren who were under 14 years of age. Data indicated that full-time caregivers reported less life satisfaction than other grandmothers in the study. Of the full-time caregivers who were married, almost half reported a change for the worse in their marital relationship after taking on the parental role for their grandchild(ren) (Bowers & Meyers). This finding is consistent with other research that indicates grandparents who care for their grandchildren experience decreased marital satisfaction, social networking, and psychological well-being (Bullock, 2004; Minkler, Roe, & Robertson-Berkley, 1994).

Increased psychological distress is of concern for GRGs as well as for the children they are parenting – especially in rural communities where social isolation is common. According to researchers of grandparents raising grandchildren, increased psychological distress is associated with poor parenting and family functioning, negative
parent-child interaction, and lower child developmental confidence (Crnic & Greenberg, 1990; Kelley et al., 2000).

Because grandparents who raise their grandchildren are confronted with stressors on several levels, it is expected that those who provide full-time care for their grandchildren face the greatest stressors which lead to poorer outcomes (Bowers & Myers, 1999). Increased psychological distress may also lead to child abuse and neglect due to the reduction in grandparent’s ability to implement and monitor effective ways of dealing with children’s behavior (Kelley et al.) Given the findings within the extant literature it is hypothesized that lower levels of depression will be associated with lower levels of stress.

Parental Level Factor

Parental Confidence. Some literature suggests that difficulties controlling grandchildren’s behavior, coping with generational differences in values and parenting styles, and assuming firm parental control can lead to psychological distress in grandparent caregivers (Sands & Goldberg-Glen, 2000). Grandparents may feel disconnected or out of touch with changes in parenting and discipline styles, the ever-changing educational system, and even pop culture as it relates to how children behave and interact socially. Society and parenting has changed in the years since many grandparents were in the parenting role the first time. Grandparents face uncertainties about how to handle a child who has an emotional outburst or a child who has difficulty with school (Landry-Meyer & Newman, 2004; Waldrop & Weber, 2001). For many grandparents, the grandchildren they are parenting enter their homes with a variety of
emotional and physical disturbances of which the custodial grandparent may be unprepared to handle (Emick & Hayslip, 1999). In addition to the change in parenting methodologies over the last few decades, children who come from homes with little or no structure (as is common in households where abuse and neglect occurs) often rebel at efforts to restrict activities or behavior (Cox, 2002). This challenge to authority may lower the self-esteem and confidence of the grandparent caregiver in addition to adding more stress to an already complicated situation.

Research indicates that grandparents may feel as though they failed the first time as a parent which led to their inheritance of a grandchild to raise. Accepting the reality that their own child is not competent or able to parent may bring about doubts about the individual grandparent’s capacity to parent a grandchild and may influence grandparent stress associated with raising their grandchildren (Cox, 2002). It can be posited that high parental confidence will be related to low stress among grandparent caregivers because grandparents who are confident in their abilities may have better coping skills.

Community Level Factor

Perceived Social Support. There is an abundance of evidence that points to social support being an important factor in psychological and physical adjustment to stressful life events (Mickelson, 2001). Grandparents who are called upon to raise their grandchildren are often under stress which comes from a variety of different sources. Emick and Hayslip (1999) conducted a study in which three groups of grandparents were examined: those raising “normal” grandchildren, those who had problematic grandchildren, and non-custodial grandparents. The study found that custodial
grandparent caregivers reported less available support than did the comparison groups (Emick & Hayslip).

Research on grandparents raising grandchildren indicates that many grandparents feel socially isolated from their peers (Emick & Hayslip, 1999; Shore & Hayslip, 1994), which in a rural setting can be compounded by few opportunities to participate in social networks, poor physical health, and transportation problems (Kelley et al., 2000; Revicki & Mitchell, 1990). Social isolation from peers due to demands of raising children off-time has been reported by several researchers who are studying the relationship between grandparents raising grandchildren and well-being (Bullock, 2004; Kelley, 1993; Kelley et al., 2000; Stoller & Lee, 1994). In a study of grandparents raising grandchildren conducted by Kelley (1993) social isolation was one predictor of psychological distress. This finding is significant because social support is often a mediator of stress in parents (Crnic & Greenberg, 1990; Crockenberg, 1987; Kelley et al., 2000) and can buffer the relationship between parenting stress and parenting behavior (Rodgers, 1998). Lack of social support has also been associated with child maltreatment (Corse et al., 1990). As noted by Cox (2003), “[s]upportive relationships that provide emotional sustenance, reinforcement, and encouragement are critical in easing the transition into the parenting role” (p. 129). Many grandparents are without the appropriate supports and, therefore, are at an increased susceptibility to stress (Sands & Goldberg-Glen, 2000).

Research in one study examined the extent to which social supports were related to grandparents’ stress, and found that lack of supports accounted for 35% of the variance in stress (Sands & Goldberg-Glen, 2000). According to Cochran and Brassard (1979) mothers whose social support networks enhance their self-esteem increase their ability to
parent more effectively. Rodgers (1993) found that in mothers who perceived their social support as high, parenting stress had a less obvious effect on parenting behavior. Grandparents raising grandchildren may be able to prevent or manage stress with the support of community resources, but research indicates that there are inadequacies in public programs designed to meet the needs of these families (Bullock, 2004; Sands & Goldberg-Glen, 2000). While familial networks are preferable to formal service networks, neither alone can meet the needs of these unique family systems. A balanced support system of informal and formal services is necessary to meet the demands of grandparents raising grandchildren (Burnette, 1999).

Burton (1992) performed a qualitative study that included 60 African-American grandparents and great-grandparents who were raising their grandchildren as a result of the parent’s drug addiction. Burton examined stressors, outcomes and social service needs of the grandparents, who ranged in age from 43-82 years. The participants lived in primarily low-income, urban areas. The sample consisted of 10 grandfathers and 50 grandmothers who were parenting between one and eight children who ranged in age from one month to 20 years. Burton found that 97% of the grandparents who participated did not receive consistent and reliable support from family members, and so grandparents turned to community agencies for assistance with their needs. Data indicated that 77% of grandparents needed economic assistance to care for their grandchildren and 68% needed respite services. Emotional support was another area where grandparents felt they were lacking. Counseling and grandparent’s support groups were the top two items requested by grandparents in the study (Burton, 1992).
Previous research indicates that social support declines over the lifespan. This decline is explained by depletion of resources and increased burden (Mickelson, 2001; Eckenrode & Wethington, 1990). As grandparents age, their social network begins to diminish due to changes in life, friends and family moving away, and death. Elderly individuals have traditionally relied on family for support in their advanced age, but in today's society they are increasingly forced to rely on state and community agencies for their needs. In rural communities there may be a paucity of local support which may be a barrier to grandparent success. In addition, roles have been reversed, and grandparents are now caring for the next generation instead of children and grandchildren taking care of the needs of the older generation. It can be speculated that social isolation and low perception of social support among grandparents raising grandchildren are predictive of high stress.

**Purpose**

There are a number of variables important to understanding stress among grandparents raising grandchildren. The purpose of this study was to examine selected variables at the individual, parental, and community levels that are relevant to grandparents raising grandchildren in rural areas. Specifically, this study examined length of time as primary caregiver, level of income, depression, parental confidence, and perceived social support as correlates of stress among grandparents raising grandchildren. It is anticipated that a greater understanding of these relationships will facilitate GRG functioning and well-being in rural communities.
RESEARCH QUESTION AND HYPOTHESES

Research Question

To date, there is a paucity of research examining stress among grandparents raising grandchildren residing in rural communities. Therefore, this study examined the stressors experienced by rural grandparent caregivers and the ability of certain individual, parental, and support variables to explain or account for caregiver stress. Specifically, the following research question was assessed: How does length of time as primary caregiver, level of income, depression, parental confidence, and perceived social support relate to and predict parental stress among rural grandparents raising grandchildren? Based on extant literature this study generated and tested a number of hypotheses.

Univariate Hypotheses

Individual Level Factors

1. As length of time in caregiving role increases, level of stress will decrease.

2. As level of income increases, level of stress will decrease.

3. As depression increases, level of stress will increase.

Parental Level Factor

4. As parental confidence increases, level of stress will decrease.

Community Level Factor

5. As perceived social support increases, level of stress will decrease.
Multivariate Hypothesis

Independent variables taken together at the individual level (length of time, grandparents’ level of income, and depression), parental level (parental confidence), and community level (perceived social support) will be predictive of parental stress in grandparents raising grandchildren.
METHODS

Sample

This study was part of a larger longitudinal study investigating the needs of grandparents raising grandchildren in rural Montana. For the purposes of the current investigation, only Time 1 data were examined. Of the 83 grandparents who expressed interest in participating in the larger study, 52 grandparents completed and returned surveys yielding a 63% response rate.

Several of these respondent surveys were dropped from the current analysis. Twelve respondents were part of a couple. In order to ensure internal validity, one partner from each couple was randomly selected to be included resulting in six surveys being excluded. An additional two respondents were either African-American or Hispanic. Because so few represented these two racial/ethnic categories, these cases were dropped from the current study. In the final analysis, 44 GRG surveys were examined.

For the purposes of this study, grandparent caregivers were solely responsible for the complete physical and financial responsibility for at least one grandchild under the age of 18 who also resided in the grandparent’s home. Children’s parents must not live in the home and child custody must have been established through either formal or informal arrangements. See Table 1 in the results section for a description of sample characteristics.
Dependent Variable

Parental Stress. Parental stress was measured using the Parental Stress Scale (Berry, 1995) which was modified for grandparents who are parenting their grandchildren. The Parenting Stress Scale is highly reliable, internally and over time, and is related to the general measure of stress. Previous researchers reported a Chronbach Alpha score of .83. Scale characteristics are reported to be stable as results were consistent across parents of differing parental characteristics (Berry.) The scale measures variations of parental stress, including the emotional dimension (e.g. guilt, anxiety) and role satisfaction dimension (e.g. marital satisfaction and job satisfaction, social support; Berry.) The survey instrument is included in Appendix A.

Seventeen questions were asked using Likert-type scales. Questions include, “I am happy in my role as a grandparent,” “I feel close to my grandchildren,” “My grandchildren are an important source of affection for me,” and “I feel overwhelmed by the responsibility of being a grandparent.” Each answer was coded on a scale ranging from 1 (strongly agree) to 4 (strongly disagree). Eight variables were reverse coded, and all answers were summed to get a total score for parental stress. The reliability analysis of this and other study measures are reported in the results section.

Independent Variables

Demographic Characteristics. Demographic information was obtained on a demographic characteristics form designed for the current study. Respondents were asked
questions about their age, race, marital status, length of time in caregiving role, income and education levels, and the primary reason they were parenting their grandchild. Other demographic data collected for the study are presented in Table 1.

Depression. Depression as an indicator of psychological well-being was measured using the Centers for Epidemiological Studies-Depression Scale (CES-D; Radloff, 1977). Depression was defined in this study as symptomology expressed through the self-report CES-D Scale which included: depressed mood, feelings of guilt and worthlessness, feelings of helplessness and hopelessness, psychomotor retardation, loss of appetite, and sleep disturbance. This scale has been successfully used in non-clinical samples. The CES-D is a widely used, easily administrated self-report measure of current depressive symptoms. The scale has good internal consistency with a Cronbach’s alpha of .73, acceptable test-retest reliability, and excellent concurrent validity. The psychometric properties have previously been found to be consistent across sex, age, and ethnic subgroups (Radloff & Locke, 1986).

Questions on the CES-D included, “I was bothered by things that don’t usually bother me,” “I felt that everything I did was an effort,” “My sleep was restless,” and “I felt that people disliked me.” Each symptom was coded on a scale ranging from 0 (symptom experienced rarely or never in the past week) to 4 (symptom experienced usually or all the time in the past week). This measure was scored by summing the 20 items, which yielded scores ranging from 1-60. The cutoff score of 16 indicates clinical concern for depression (Radloff, 1977).

Parental Confidence and Perceived Social Support. For this study, parental confidence was conceptually defined as a parents’ perceived security in their ability to
parent their child effectively. Social support referred to assistance provided by network members such as family, friends, other parents, social groups, clergy, and community agencies. This variable also addressed whether or not grandparent caregivers felt they had someone to help in an emergency, someone to offer advice or moral support, and someone to relax with.

Perceived confidence in parenting and social support were measured using the Parenting Ladder (Pratt, 1995). This measure was adapted to fit the target population of grandparents who are parenting their grandchildren. The Parenting Ladder assesses parental knowledge of child development, confidence in parenting, basic resources, social support, stress, and coping skills (Pratt, McGuigan, & Katzev, 2000). The Parenting Ladder contains ten questions and respondents rated themselves on a scale of 0 (low) to six (high). Parental confidence subscale items included, “Your knowledge of how children grow and develop,” and “Your ability to create a safe home for your grandchild.” Perceived social support subscale items included, “Someone to relax with,” and “Other parents to talk to.”

The Parenting Ladder was selected because the scale is visual and easy to fill out. Although there are numerous scales available to measure parental confidence and social support, this measure was selected because it is short, and likely would reduce burden on participants filling out a lengthy questionnaire. Information about the reliability and validity of this measure was not available, however, questions used in the Parenting Ladder are also used in longer measures of parental confidence and social support. This study found each subscale to be reliable (see Table 1).
Procedure

Using a purposive sample and a snowball sampling technique, quantitative data were collected from 44 grandparents raising their grandchildren in Montana. Information regarding the survey was made available through brochures, bi-monthly newsletters, e-mail listserv, child care programs, senior citizen groups, facilitators of grandparent support groups across the state, statewide County Extension Agents, and through cooperation with AARP.

Participants were recruited from grandparents raising grandchildren support groups that have been initiated across the state through the Extension Service. Recruitment protocols were also established by working closely with professionals in community and state agencies via personal contact, face to face meetings, and phone calls. When these professionals interacted with GRGs, they referred grandparents to the project. Interested participants were sent a consent form and a written survey with a self-addressed stamped envelope.

Grandparents who did not return the survey were followed up with via mail (see Appendices F, G, and H). Upon completion of the survey, participants received a $20 stipend as a thank you for their time and participation. The study was approved by Montana State University’s Internal Review Board Human Subjects Committee (see Appendix B).

Confidentiality was maintained through a precise coding system. Each participant was issued a numerical code which was placed on the individual’s consent form and survey. Codes were kept in a separate location from the completed surveys, and all data
and identifying information was in a locked area. As research is disseminated in the future, identifying information will be excluded from the results.

Data Analysis Plan

Preliminary Analysis

Prior to analyzing the data, variables were cleaned and coded. Data were then entered and examined for errors. Prior to testing the study hypotheses, univariate statistics were run to determine the demographic characteristics of the sample (e.g., frequencies, means, and standard deviations).

Next, to test the study hypotheses, bivariate correlation coefficients were run. This analysis allowed us to examine the strength and magnitude of the relationships between the independent variables and the dependent variable. Further explorations were also run comparing the dependent and independent variables by racial group. Because of significant differences between groups, these analyses were included to assist with discussion of findings and implications for future research and practice. This study set an apriori level of significance at $p < .05$.

Hierarchical Regression Analysis

To examine individual, parental, and community factors that best predict stress among grandparents raising grandchildren, a hierarchical regression analysis was conducted. The hierarchical regression analysis was chosen in order to examination how the variables of interest interact within their ecological levels. Specific predictor variables
entered into the first block included the following individual level factors: length of time in the primary caregiver role, grandparents’ income level, and depression. The second block included the parental-level factor, parental confidence, and the third block included perceived social support, representing the community-level context. The dependent variable for this study was parental stress. Using a hierarchical analysis allowed for an examination of the percent of variance in the dependent variable explained by each independent variable within the individual, parental, and community contexts. Total variance for the model was also examined.

The rule of thumb for sample-size using regression analysis according to Darlington (1990) is that the sample size should equal at least 10 times the number of regressors. For this study, there were five regressors which would require a sample size of 50. The power of the regression analyses in this study is limited due to the study’s sample size of 44 participants.
RESULTS

Univariate Analyses

Demographic Characteristics

Table 1 presents the demographic characteristics of grandparents raising grandchildren in this study. The mean age of grandparents was 60.9 with a range of 40 to 79 years. Grandparents in the study had assumed the parenting role for their grandchildren for an average of 7.2 years which is longer than the average of six years found in previous research (Landry-Meyer, 2000). Responsibility for care of grandchildren fell to the parents of the child’s mother in 68.2% of the cases.

Grandparents in this study had relatively low educational attainment with 34% of the respondents reporting that they had some high school or had completed their high school education. Forty-four percent of grandparents reported an annual income of $20,000 or less, which is consistent with previous research that indicates grandparent headed households have disproportionately high poverty rates and that the average income for households with grandchildren present is under $20,000 (AARP, 2003; Bryson & Casper, 1998; Chalfie, 1994; Fuller-Thompson, Minkler, & Driver, 1997; Rutrough & Ofstedal, 1997; U.S. Census Bureau, 2000c).

Grandparents reported that the economic/job situation experienced by their own child (20.5%) was the primary reason they were parenting their grandchild(ren), while drugs/alcohol were reported as the primary reason(s) by 16.0% of the respondents. The “other reasons” category was marked by 14 of the grandparents (31.8%) and there were notes by many of the grandparents that they couldn’t pick just one reason. In some
situations, all of the reasons were checked. For this study, if more than one reason was checked, attempts were made to determine the primary reason, and a separate calculation of those who marked all categories was kept.

American Indian grandparents represented 34% of the sample (N=15), which is disproportionate to Census (2000d) figures indicating that the Native population in the state of Montana is 6% of the total population. Tribal groups represented by participants in the study included Assiniboine, Blackfeet, Chippewa-Cree, Crow, and Northern Cheyenne. For the purposes of this study, those participants who indicated tribal affiliations will be referred to as American Indian or Native caregivers.

**Internal Consistency and Reliability**

Internal consistency was measured using Cronbach’s alpha for all variables of interest. The acceptable level for Cronbach’s alpha is .70 or above (Berg, 1995). As Table 2 shows, all measures were found to have acceptable internal consistency with alpha scores ranging from .74 - .88. Table 2 presents the means, standard deviations, and Cronbach’s alpha for the independent and dependent variables.
Table 1. *Demographic Characteristics of the Sample (N=44)*

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>M (SD) or N (%)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grandparent Characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>7 (15.9%)</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>37 (84.1%)</td>
<td></td>
</tr>
<tr>
<td>Age of grandparent in years</td>
<td>60.3 (9.0)</td>
<td>40-79</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian</td>
<td>15 (34.1%)</td>
<td></td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>29 (66.0%)</td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Divorced/Separated</td>
<td>14 (31.8%)</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>25 (56.8%)</td>
<td></td>
</tr>
<tr>
<td>Single/Never Married</td>
<td>1 (2.3%)</td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td>4 (9.1%)</td>
<td></td>
</tr>
<tr>
<td>Highest level of education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school</td>
<td>5 (11.4%)</td>
<td></td>
</tr>
<tr>
<td>High school diploma</td>
<td>10 (22.7%)</td>
<td></td>
</tr>
<tr>
<td>Some college</td>
<td>15 (34.1%)</td>
<td></td>
</tr>
<tr>
<td>College graduate</td>
<td>9 (20.5%)</td>
<td></td>
</tr>
<tr>
<td>Graduate degree</td>
<td>3 (6.8%)</td>
<td></td>
</tr>
<tr>
<td>Employed outside the home- yes</td>
<td>15 (34.0%)</td>
<td></td>
</tr>
<tr>
<td>Number of hours worked per week</td>
<td>30 (13.1%)</td>
<td>4-40</td>
</tr>
<tr>
<td>Retired</td>
<td>19 (43.2%)</td>
<td></td>
</tr>
<tr>
<td><strong>Family Characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average number of grandchildren they are parenting</td>
<td>1.9 (1.1)</td>
<td>1-5</td>
</tr>
</tbody>
</table>
Table 1. *Continued*

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>M (SD) or N (%)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of time in years as primary caregiver</td>
<td>7.2 (5.7)</td>
<td>.17-20</td>
</tr>
</tbody>
</table>

Primary reason for parenting grandchildren
- Economic/job situation: 9 (20.5%)
- Divorce: 4 (9.1%)
- Drugs/Alcohol: 7 (16.0%)
- Death: 3 (6.8%)
- Incarceration: 4 (9.1%)
- Mental Illness: 1 (2.3%)
- Other: 14 (31.8%)

Maternal or paternal grandparents
- Mother: 30 (68.2%)
- Father: 9 (20.5%)

Household’s annual income
- $0-$10,000: 7 (15.9%)
- $10,001-$20,000: 13 (29.5%)
- $20,001-$30,000: 4 (9.1%)
- $30,001-$40,000: 7 (15.9%)
- $40,001-$50,000: 5 (11.4%)
- $50,001-$60,000: 0 (0.0%)
- $60,001-$70,000: 0 (0.0%)
- $70,001 or more: 2 (4.5%)

**Grandchild Characteristics**
- Average age of grandchildren in years: 9.4 (5.3) Infant-19.5

Gender of grandchildren
- Male: 43 (50.0%)
- Female: 43 (50.0%)
Table 2. *Means, Standard Deviations and Cronbach’s Alpha for Independent and Dependent Variables*

<table>
<thead>
<tr>
<th></th>
<th>M (SD)</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Independent Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of Time in Caregiver Role</td>
<td>7.2 (5.7)</td>
<td>--</td>
</tr>
<tr>
<td>Grandparents Income Level</td>
<td>3.0 (1.8)</td>
<td>--</td>
</tr>
<tr>
<td>Depression</td>
<td>12.3 (9.6)</td>
<td>.88</td>
</tr>
<tr>
<td>Parental Confidence</td>
<td>4.98 (0.7)</td>
<td>.74</td>
</tr>
<tr>
<td>Perceived Social Support</td>
<td>4.28 (1.4)</td>
<td>.84</td>
</tr>
<tr>
<td><strong>Dependent Variable</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parental Stress</td>
<td>17.21 (8.9)</td>
<td>.88</td>
</tr>
</tbody>
</table>
Bivariate Analyses

Bivariate Relationships between Demographic Characteristics and Independent Variables

Table 3 presents a correlation matrix depicting the strength and magnitude of relationships between the demographic characteristics of the sample and the independent variables. For dummy coded variables (gender, race, marital status, education, and employment) bi-classical correlations were conducted. Findings reveal that length of time in the caregiving role was negatively correlated to grandparents level of education ($r = -.60, p < .01$) and race ($r = -.38, p < .05$). This suggests that grandparents who have provided care for longer periods have less education; minority grandparents take on longer periods of caregiving than White grandparents. Race ($r = .48, p < .01$) and gender ($r = .37, p < .05$) were positively related to grandparents’ level of income. Non-Native and male grandparents have higher income levels than their Native and female counterparts. Level of income was negatively related to depression ($r = -.35, p < .05$) and martial status ($r = -.51, p < .01$). As level of income increases, level of depression decreases. Those who are married have higher levels of income than those who are not married. Parental confidence was positively correlated with perceived social support ($r = .45, p < .01$), which indicates that as social support increases, parental confidence increases. Parental confidence was negatively related to gender ($r = -.37, p < .05$), which indicates that females are more confident than males who parent their grandchildren.
Table 3. Correlation Coefficients of Demographic Variables by Independent Variables

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender</td>
<td></td>
<td>.09</td>
<td>.05</td>
<td>.10</td>
<td>.20</td>
<td>.08</td>
<td>.24</td>
<td>.03</td>
<td>-.16</td>
<td>.37*</td>
<td>-.12</td>
<td>-.37*</td>
<td>-.11</td>
</tr>
<tr>
<td>2. Age of Grandparent</td>
<td></td>
<td></td>
<td>-.19</td>
<td>.08</td>
<td>-.34</td>
<td>-.16</td>
<td>-.04</td>
<td>.54**</td>
<td>.49**</td>
<td>-.08</td>
<td>.00</td>
<td>.17</td>
<td>.35*</td>
</tr>
<tr>
<td>3. Race</td>
<td></td>
<td></td>
<td></td>
<td>-.24</td>
<td>.32*</td>
<td>.01</td>
<td>.09</td>
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<td>-.01</td>
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<td>11. Depression</td>
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<tr>
<td>12. Parental Confidence</td>
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<td>13. Social Support</td>
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</tbody>
</table>

† p < .10 * p < .05 ** p < .01. Note. Variables dummy coded as follows: Gender: 0 = Female, 1 = Male; Race: 0 = American Indian, 1 = Caucasian; Marital Status: 0 = Married, 1 = All others; Education: 0 = Less than high school and high school, 1 = All others; Employed, 0 = No, 1 = Yes.
Bivariate Relationships between Demographic Characteristics and Parental Stress

Table 4 presents a correlation matrix depicting the interrelationships among demographic characteristics of the sample and the dependent variable parental stress. For dummy coded variables (gender, race, marital status, education, and employment) biserial correlations were conducted. Findings reveal that age of grandparent was significantly negatively correlated with level of education ($r = -.34, p < .05$). This finding indicates that as the age of grandparents increases, education level decreases. Additionally race and average age of grandchild were negatively correlated ($r = -.31, p < .05$). The direction of this result indicates that Caucasian grandparents are parenting younger grandchildren. A significantly positive correlation was exhibited between race and level of education ($r = .32, p < .05$). Caucasian caregivers reported higher levels of income than their Native counterparts. Although demographic variables were related to each other, no demographic characteristics were significantly related to parental stress.
<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<th>6</th>
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<td>.05</td>
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<td>.08</td>
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<td>--</td>
<td>--</td>
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<td>.08</td>
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<td>-.16</td>
<td>-.04</td>
<td>.54**</td>
<td>.10</td>
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<td>3. Race</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>-.24</td>
<td>.32*</td>
<td>.01</td>
<td>.09</td>
<td>-.31*</td>
<td>-.04</td>
</tr>
<tr>
<td>4. Marital Status</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>-.12</td>
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<td>-.29†</td>
<td>-.10</td>
<td>-.17</td>
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<tr>
<td>5. Highest Level of Education</td>
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<td>--</td>
<td>--</td>
<td>--</td>
<td>.24</td>
<td>-.04</td>
<td>-.41</td>
<td>.09</td>
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<tr>
<td>6. Employed Outside Home</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
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<td>7. Average Number of Grandchildren</td>
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<td>.14</td>
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<td>8. Average Age of Grandchild</td>
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<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>-.22</td>
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</tbody>
</table>

Dependent Variable

9. Parental Stress

---

† $p < .10$  * $p < .05$. ** $p < .01$. Note. Variables dummy coded as follows: Gender: 0 = Female, 1 = Male; Race: 0 = American Indian, 1 = Caucasian; Marital Status: 0 = Married, 1 = All others; Education: 0 = Less than high school and high school, 1 = All others; Employed, 0 = No, 1 = Yes.
Bivariate Relationships between Predictor Variables and Parental Stress

Correlation coefficients depicting the strength and direction of the relationships between predictor variables and parental stress are presented in Table 5. Parental stress was significantly negative correlated with two predictor variables: length of time in the caregiving role \((r = -.33, p < .05)\), and parental confidence \((r = -.31, p < .05)\). As length of time in the caregiving role and parental confidence increase, parental stress decreases. Parental stress showed a negative trend in the relationship to perceived social support \((r = -.29, p < .10)\). This finding indicates that as social support increases parental stress decreases. The strongest relationship existed between depression and parental stress \((r = .48, p < .01)\), which suggests that as depression increases, parental stress increases.

Significant positive relationships existed among predictor variables as well. Length of time in the caregiving role was positively related to perceived social support \((r = .34, p < .05)\), which indicates as length of time increases, perceived social support increases. Parental confidence was related to perceived social support \((r = .45, p < .01)\). This finding suggests that with increased levels of perceived social support, grandparents report increased parental confidence. Grandparent level of income \((r = -.35, p < .05)\) was significantly negatively correlated with depression. As perceived social support and grandparent income level decrease, depression increases. Two trends emerged, between depression and length of time in the caregiving role, and depression and perceived social support.
Table 5. Correlation Coefficients of Independent and Dependent Variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<td><strong>Individual Level Factors</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Length of Time in Caregiver Role</td>
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<td>-.03</td>
<td>-.23</td>
<td>.28†</td>
<td>.34*</td>
<td>-.33*</td>
</tr>
<tr>
<td>2. Grandparents Income Level</td>
<td></td>
<td></td>
<td>-.35*</td>
<td>-.01</td>
<td>.09</td>
<td>.04</td>
</tr>
<tr>
<td>3. Depression</td>
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<td></td>
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<td>-.18</td>
<td>-.27†</td>
<td>.48**</td>
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<tr>
<td>4. Parental Confidence</td>
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<td></td>
<td></td>
<td>.45** -.31*</td>
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<td><strong>Community Level Factors</strong></td>
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<td></td>
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</tr>
<tr>
<td>5. Perceived Social Support</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>-.29†</td>
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<td>6. Parental Stress</td>
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</tbody>
</table>

† \( p < .10 \)  * \( p < .05 \)  ** \( p < .01 \).
Independent Sample t-Test and Chi-Square Comparisons of Demographic and Predictor Variables by Race

Given that this study included American Indian and Caucasian grandparents, we first compared the demographic profiles of these two groups of grandparents (see Table 6). Using independent samples t-tests for continuous outcome variables, and Chi-square analysis for discrete outcome variables, several significant differences between Native and Caucasian caregivers emerged. Caucasian grandparents showed higher income levels ($M = 3.58, SD = 1.84$) than Native grandparents ($M = 1.8, SD = .8$); $t(36) = -3.3, p < .05$, higher educational attainment ($M = 3.2, SD = .9$) than Native grandparents ($M = 2.3, SD = 1.3$); $t(40) = -2.63, p < .05$, and less time in the caregiving role ($M = 5.6, SD = 5.3$) than Native grandparents ($M = 10.0, SD = 5.3$); $t(39) = 2.6, p < .05$.

Given the differences revealed by the comparison of demographic variables between American Indians and Caucasians, the other variables of interest were examined further by race. Using independent samples t-tests, another significant difference between Native and Caucasian caregivers was discovered (see Table 7). American Indian grandparents scored significantly higher ($M = 17.6, SD = 11.7$) than Caucasian grandparents on the CES-D scale ($M = 10.0, SD = 7.5$; $t(37) = 2.4, p < .05$). The CES-D scale has a cut-off of 16, and scores above this level indicate the presence of psychological distress (Radloff, 1977). In this sample, out of the 15 American Indian grandparents surveyed, seven caregivers scored above the cut-off, suggesting that nearly half of the American Indian grandparents were experiencing depressive symptom levels to indicate cause for clinical concern.
Table 6. *Demographic Characteristics by Race*

<table>
<thead>
<tr>
<th>Demographic Characteristic</th>
<th>American Indian (N=15)</th>
<th>Caucasian (N=29)</th>
<th>t(df) or χ² (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD), N (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Grandparent Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age of grandparent in years</td>
<td>62.7 (9.6)</td>
<td>59.0 (8.5)</td>
<td>t(42) = 1.3</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td>χ²(44) = 6.1</td>
</tr>
<tr>
<td>Divorced/Separated</td>
<td>5 (33.0%)</td>
<td>9 (31.0%)</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>6 (40.0%)</td>
<td>19 (65.5%)</td>
<td></td>
</tr>
<tr>
<td>Single/Never Married</td>
<td>1 (6.7%)</td>
<td>0 (0.0%)</td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td>3 (20.0%)</td>
<td>1 (3.4%)</td>
<td></td>
</tr>
<tr>
<td>Highest level of education</td>
<td></td>
<td></td>
<td>χ²(42) = 12.4*</td>
</tr>
<tr>
<td>Less than high school</td>
<td>5 (35.7%)</td>
<td>0 (0.0%)</td>
<td></td>
</tr>
<tr>
<td>High school diploma</td>
<td>3 (21.4%)</td>
<td>7 (25.0%)</td>
<td></td>
</tr>
<tr>
<td>Some college</td>
<td>4 (28.6%)</td>
<td>11 (39.3%)</td>
<td></td>
</tr>
<tr>
<td>College graduate</td>
<td>1 (7.1%)</td>
<td>8 (28.6%)</td>
<td></td>
</tr>
<tr>
<td>Graduate degree</td>
<td>1 (7.1%)</td>
<td>2 (7.1%)</td>
<td></td>
</tr>
<tr>
<td>Employed outside the home</td>
<td></td>
<td></td>
<td>χ²(44) = 0.01</td>
</tr>
<tr>
<td>No</td>
<td>10 (66.7%)</td>
<td>19 (65.5%)</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>5 (6.7%)</td>
<td>10 (34.5%)</td>
<td></td>
</tr>
<tr>
<td>Number of hours worked per week</td>
<td>17.3(19.7)</td>
<td>34.1 (7.7)</td>
<td></td>
</tr>
<tr>
<td><strong>Family Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average number of grandchildren they are parenting</td>
<td>1.7 (0.7)</td>
<td>1.9 (1.2)</td>
<td>t(41) = -.54</td>
</tr>
<tr>
<td>Length of time in years as primary caregiver</td>
<td>10.0 (5.3)</td>
<td>5.6 (5.3)</td>
<td>t(39) = 2.6*</td>
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</tbody>
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Table 6. Continued

<table>
<thead>
<tr>
<th>Demographic Variable</th>
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<th>Caucasian (N=29)</th>
<th>t(df) or $\chi^2$</th>
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<td></td>
</tr>
<tr>
<td>Primary reason for parenting grandchildren</td>
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</tr>
<tr>
<td>Economic/job situation</td>
<td>3 (21.4%)</td>
<td>6 (21.4%)</td>
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</tr>
<tr>
<td>Divorce</td>
<td>2 (14.3%)</td>
<td>2 (7.1%)</td>
<td></td>
</tr>
<tr>
<td>Drugs/Alcohol</td>
<td>3 (21.4%)</td>
<td>4 (14.3%)</td>
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</tr>
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<td>Death</td>
<td>1 (7.1%)</td>
<td>2 (7.1%)</td>
<td></td>
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<tr>
<td>Incarceration</td>
<td>1 (7.1%)</td>
<td>3 (10.7%)</td>
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<tr>
<td>Mental Illness</td>
<td>1 (7.1%)</td>
<td>0 (0.0%)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>3 (21.4%)</td>
<td>11 (39.3%)</td>
<td></td>
</tr>
<tr>
<td>Household’s annual income</td>
<td>1.8 (0.8)</td>
<td>3.6 (1.8)</td>
<td>$t(38) = 12.5^*$</td>
</tr>
<tr>
<td>$0-$$10,000</td>
<td>5 (33.3%)</td>
<td>2 (6.9%)</td>
<td></td>
</tr>
<tr>
<td>$10,001-$$20,000</td>
<td>5 (33.3%)</td>
<td>8 (27.6%)</td>
<td></td>
</tr>
<tr>
<td>$20,001-$$30,000</td>
<td>2 (13.3%)</td>
<td>2 (6.9%)</td>
<td></td>
</tr>
<tr>
<td>$30,001-$$40,000</td>
<td>0 (0.0%)</td>
<td>7 (24.1%)</td>
<td></td>
</tr>
<tr>
<td>$40,001-$$50,000</td>
<td>0 (0.0%)</td>
<td>5 (17.2%)</td>
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</tr>
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<td>$50,001-$$60,000</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
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<td>$60,001-$$70,000</td>
<td>0 (0.0%)</td>
<td>0 (0.0%)</td>
<td></td>
</tr>
<tr>
<td>$70,001 or more</td>
<td>0 (0.0%)</td>
<td>2 (6.9%)</td>
<td></td>
</tr>
<tr>
<td>Grandchild Characteristics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average age of grandchildren in years</td>
<td>11.7 (4.9)</td>
<td>8.3 (5.2)</td>
<td>$t(39) = 2.1^*$</td>
</tr>
</tbody>
</table>

$\dagger p < .10$  $^* p < .05$.  $** p < .01$

*Note 1.* The variable “number of hours worked” had too few cases across groups and missing data, therefore no statistics were run. *Note 2.* Because of the number of empty cells for the variable “household annual income” no Chi-square analysis was run.
Bivariate Relationships between Variables of Interest and Race

Given the differences revealed by the comparison of demographic variables between American Indians and Caucasians, the variables of interest were examined further by race. Correlation coefficients depicting the strength and direction of the relationships between variables of interest and race are presented in Table 8. Marked differences between Native and Caucasians caregivers were revealed. For American Indian caregivers a significant negative relationship existed between length of time in the primary caregiving role and depression (\( r = -.64, p < .01 \)). This score indicates that as length of time increases, depression decreases. Perceived social support was positively related to length of time in the caregiving role (\( r = .66, p < .01 \)). As length of time increases, perceived social support increases. Parental confidence (\( r = .72, p < .01 \)) also indicated a significant positive relationship with perceived social support, and these findings suggest that as parental confidence increases, perceived social support will also increase. Depression was negatively correlated with parental confidence (\( r = -.59, p < .01 \)), and positively correlated with parental stress (\( r = .88, p < .01 \)). This finding suggests that as parental confidence increases, depression decreases, and parental stress increases depression decreases.

As shown in Table 8, for Caucasian caregivers, multiple trends emerged but few significant correlations were revealed. The only significant relationship was between parental confidence and parental stress (\( r = -.42, p < .05 \)), where increased parental confidence was related to decreased stress.
Table 7. *Independent Samples t-Test of Variables of Interest by Race*

<table>
<thead>
<tr>
<th>Race</th>
<th>American Indian (N=15)</th>
<th>Caucasian (N=29)</th>
<th>t-Test</th>
</tr>
</thead>
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<tr>
<td><strong>Independent Variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of Time in Caregiver Role</td>
<td>10.0 (5.3)</td>
<td>5.6 (5.3)</td>
<td>2.6*</td>
</tr>
<tr>
<td>Grandparents Income Level</td>
<td>1.8 (0.8)</td>
<td>3.6 (1.8)</td>
<td>-3.3**</td>
</tr>
<tr>
<td>Depression</td>
<td>17.6 (11.7)</td>
<td>10.0 (7.5)</td>
<td>2.4*</td>
</tr>
<tr>
<td>Parental Confidence</td>
<td>5.2 (0.6)</td>
<td>4.9 (0.8)</td>
<td>1.7</td>
</tr>
<tr>
<td>Perceived Social Support</td>
<td>4.5 (1.4)</td>
<td>4.2 (1.3)</td>
<td>0.8</td>
</tr>
<tr>
<td><strong>Dependent Variable</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parental Stress</td>
<td>17.7 (10.0)</td>
<td>17.0 (8.5)</td>
<td>0.2</td>
</tr>
</tbody>
</table>

*p < .05. **p < .01.

Note. Income range 1-8.
Table 8. *Correlation Coefficients of Independent and Dependent Variables by Race*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<td></td>
<td></td>
</tr>
<tr>
<td>1. Length of Time in Caregiver Role</td>
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<td>.16</td>
<td>-.26</td>
<td>-.00</td>
<td>.08</td>
<td>-.39†</td>
</tr>
<tr>
<td>2. Grandparents Income Level</td>
<td>.00</td>
<td>--</td>
<td>.38†</td>
<td>-.13</td>
<td>.17</td>
<td>-.00</td>
</tr>
<tr>
<td>3. Depression</td>
<td>-.64**</td>
<td>.23</td>
<td>--</td>
<td>-.08</td>
<td>-.12</td>
<td>.34†</td>
</tr>
<tr>
<td><strong>Parental Level Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Parental Confidence</td>
<td>.72**</td>
<td>.06</td>
<td>-.59*</td>
<td>--</td>
<td>.32†</td>
<td>-.42*</td>
</tr>
<tr>
<td><strong>Community Level Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Perceived Social Support</td>
<td>.66**</td>
<td>-.08</td>
<td>-.59*</td>
<td>.72**</td>
<td>--</td>
<td>-.32†</td>
</tr>
<tr>
<td><strong>Dependent Variable</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Parental Stress</td>
<td>-.32</td>
<td>.14</td>
<td>.88**</td>
<td>-.16</td>
<td>-.26</td>
<td>--</td>
</tr>
</tbody>
</table>

† *p < .10  * *p < .05. ** *p < .01.

Note. Coefficients for American Indians on bottom half of table.
Multivariate Analysis

Demographic variables were included in the initial regression analyses in addition to the variables of interest. There were no significant demographic variables in the regression model. Thus, no demographic variables were included in the final regression analyses.

Hierarchical Regression Analysis

Table 9 displays summary results of the hierarchical regression analysis predicting parental stress among grandparent caregivers. Five variables were entered into three blocks. Block 1 contained the individual level variables (length of time, level of income, and depression). Moving from the individual to the parental level, parental confidence was entered next in Block 2. Finally, at the community level (Block 3), perceived social support was entered.

The three hierarchical regression models were significant at each of the three levels. Model 1 revealed that depression was a significant predictor where increased depressive symptomatology predicted increased parental stress. Also in Model 1, length of time approached significance as a predictor of parental stress ($p = .06$). Taken together, the three predictor variables in this model accounted for 38% of the variance in parental stress. When parental confidence was added in Model 2, 53% of the variance in parental stress was accounted for, thus increasing this model’s explanatory power. As confidence increased, stress decreased. Model 3, which added perceived social support, offered no significant improvement. As shown in Table 8, when all variables were taken together,
two variables emerged as the best predictors of parental stress among grandparents raising grandchildren: parental confidence ($p < .05$) and depression ($p < .05$). The final regression model was significant, $F(5, 44) = 6.17$, $p < .001$, with an $R^2$ of .54.
Table 9. *Summary of Hierarchical Regression Analysis for Variables Predicting Stress in Grandparents Raising Grandchildren*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B  SE  β</td>
<td>B  SE  β</td>
<td>B  SE  β</td>
</tr>
<tr>
<td>Individual Level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of Time in Caregiver Role</td>
<td>-.54 .27 -.31†</td>
<td>-.13 .28 -.08</td>
<td>-.069 .29 -.04</td>
</tr>
<tr>
<td>Grandparents Level of Income</td>
<td>1.00 .75 .21</td>
<td>.69 .68 .15</td>
<td>.69 .68 .15</td>
</tr>
<tr>
<td>Depression</td>
<td>.42 .15 .48**</td>
<td>.38 .13 .43**</td>
<td>.36 .13 .41*</td>
</tr>
<tr>
<td>Parental Level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parental Confidence</td>
<td>-5.93 2.03 -.46**</td>
<td>-5.43 2.12 -.42*</td>
<td></td>
</tr>
<tr>
<td>Community Level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived Social Support</td>
<td>-94 1.50 -.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model $R^2$</td>
<td>.38</td>
<td>.53</td>
<td>.54</td>
</tr>
<tr>
<td>Model $F$</td>
<td>5.73**</td>
<td>7.57***</td>
<td>6.17***</td>
</tr>
</tbody>
</table>

† $p < .10$  * $p < .05$  ** $p < .01$  ***$p < .001$. 
Summary of Results Compared with Original Hypotheses

Table 10 compares the original, directional hypotheses for the present study with the observed results. Univariate hypothesis 1 predicted that as level of income increased, parental stress would decrease. Univariate hypothesis 3 predicted that as parental depression decreased, parental stress would decrease. Univariate hypothesis 4 predicted that as parental confidence increased, parental stress would decrease. The multivariate hypothesis predicted that variables taken together at the individual, parental, and community levels, would be predictive of parental stress. Refer to Table 10 for the observed results of the aforementioned hypotheses.
Table 10. *Summary of Results Compared with Original Hypotheses*

<table>
<thead>
<tr>
<th>Predicted Effects</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Univariate Hypotheses</strong></td>
<td></td>
</tr>
<tr>
<td>Individual Level Factors</td>
<td></td>
</tr>
<tr>
<td>1. As length of time in caregiving role increases, level of stress will decrease.</td>
<td>Supported, p &lt; .05</td>
</tr>
<tr>
<td>2. As level of income increases, level of stress will decrease.</td>
<td>Rejected</td>
</tr>
<tr>
<td>3. As depression increases, level of stress will increase.</td>
<td>Supported, p &lt; .001</td>
</tr>
<tr>
<td><strong>Parental Level Factor</strong></td>
<td></td>
</tr>
<tr>
<td>4. As parental confidence increases, level of stress will decrease.</td>
<td>Supported, p &lt; .05</td>
</tr>
<tr>
<td><strong>Community Level Factor</strong></td>
<td></td>
</tr>
<tr>
<td>5. As perceived social support increases, level of stress will decrease.</td>
<td>Rejected</td>
</tr>
<tr>
<td><strong>Multivariate Hypothesis</strong></td>
<td></td>
</tr>
<tr>
<td>Individual, parental and community level variables taken together will be predictive of parental stress. Findings reveal that only two variables were predictive of parental stress: depression and parental confidence.</td>
<td>Depression supported, p &lt; .01</td>
</tr>
<tr>
<td></td>
<td>Parental confidence supported, p &lt; .01</td>
</tr>
</tbody>
</table>
DISCUSSION

Using an ecological framework as a guide, the purpose of this study was to examine selected variables at the individual, parental, and community levels that may be predictive of the stressors experienced by grandparents raising grandchildren in rural communities. While there are numerous variables that may influence grandparental stress, such as macro-contextual variables like the economy or socio-political culture, this study focused on those variables that grandparents and other professionals can likely modify via personal and/or community-based intervention (Boss, 2002). It is anticipated that a greater understanding of the relationships between individual, parental, and community factors and parental stress will facilitate the functioning and well-being of grandparents raising grandchildren in rural communities.

Although extant research has begun to examine the lived experiences of grandparent caregivers, this study was unique in that it examined grandparents raising grandchildren in rural locales. Moreover, this research sheds light on the different resources available to and challenges experienced by American Indian and Caucasian grandparent caregivers. Parenting the second time around may be challenging for grandparents in any context, but rural living exposes families to obstacles related to social isolation and limited service provision and, in turn, created its own unique parenting problems (Kelley, 1993; Musil, 1998). These obstacles must be considered when attempting to address the needs of rural caregivers. The cultural variability and opportunity structures of Native and non-Native grandparent caregivers also hold implications for practice and policymaking.
While this study focused most notably on the challenges of grandparents raising grandchildren, it is important to note that not all GRGs were stressed or unhappy in their role as caregiver. Anecdotally, grandparent caregivers have shared that there are many positive aspects to their family. However, this study was aimed at identifying challenges related to stress. In general, the findings from this study are consistent with existing research in the grandparents raising grandchildren literature (Bullock, 2004; Burnette, 1999; Cox, 2000; Hayslip & Goldberg-Glen, 2000; Kelley et al., 1999). Following is a discussion of the individual, parental, and community level variables as they relate to parental stress in this study.

Individual-Level Variables and Parental Stress

As expected, the first individual-level variable examined, length of time in the caregiving role, was significantly correlated to parental stress. The longer that grandparents performed the primary caregiving function for their grandchildren, the less parenting stress they perceived. For Caucasian caregivers, who had spent significantly less time in the surrogate parental role than their American Indian counterparts (5.6 years versus 10 years, respectively), parental stress appeared to be exacerbated by their limited experience as grandparent caregivers. It seems likely that as time passes, these grandparents will become more skilled at coping with the challenges of grandparenting the second time around. With time, it is likely that grandparents gain additional parenting skills and learn how to navigate the social systems in place to serve families with complex demands and needs.
Moreover, as children grow older, schools and other support systems may be available to assist in the child rearing and socializing functions. In this study, Caucasian grandchildren were significantly younger than Native grandchildren—by nearly 3.5 years. That age difference among children, as well as the length of time spent in the caregiver role, may speak to the different developmental life courses of these families. “Younger” families, and particularly younger families coping with more recent transitions from parent to grandparent care, may simply experience more stressors than GRG families who have had more time to adjust to their new circumstances.

The second individual-level variable examined—level of income—was not significantly related to parental stress. This unexpected finding was perplexing given the extant literature that consistently indicates that financial burden is one of the top stressors for these caregivers (Burton, 1992; Fuller-Thompson, Minkler & Driver, 1997; Jendrek, 1994; Minkler, 1999; Minkler, Roe & Price, 1992; Waldrop & Weber, 2001). As mentioned, many grandparents are in the later stages of life, and have retired from the workforce and have budgeted to live on income from Social Security, pensions, and other retirement funding they may have available to them. When older grandparents take on the added financial responsibility for their grandchild(ren), an already tight budget may be stretched beyond its limits. Moreover, grandparents are not subject to automatic entitlement within many of the public financial assistance programs, and obtaining financial benefits may be difficult for grandparent caregivers (Landry-Meyer, 1999).

While level of income was not significantly related to parental stress, it was significantly correlated with depression. This finding is consistent with literature that indicates grandparents who report fewer resources experience higher levels of
psychological distress (Burton, 1992; Dowdell, 1995; Kelley, 1993; Kelley et al., 2000; Minkler & Roe, 1993). It is possible that the grandparent caregivers in this study did not experience stress with regard to their income level because 1) they perceived that their income was high enough to sustain their families, 2) they were adroit at managing their limited incomes, or 3) they were used to subsisting on low-income levels; and, while they might be depressed about their economic circumstance, they have learned how to manage their stress irrespective of income.

Clearly there are other possible explanations of this finding. For example, participant income levels were significantly different by race/ethnicity. On average, American Indian caregivers reported earning about half as much income as their Caucasian counterparts. It is feasible that Caucasian grandparent caregivers felt they had enough income to meet the needs of their families and, therefore, were not financially stressed. American Indian grandparents may have relied on other resources and supports to counter the ill-effects of low-income on parental stress.

It is also possible that this study’s operationalization of income was limited as the study did not ask specifically how much income grandparents earned, but asked for their income range. Perhaps, a more specific measure of income would yield results more consistent to the extant literature. Because this study’s sample sizes by race are small, it is difficult to adequately explore this variable. Future research should continue to look at how income level relates to parental stress, particularly across diverse racial/ethnic groups as it is likely that these groups cope differently with varied resource limitations.

Depression was the third individual-level variable examined in this study and served as a proxy for grandparents’ psychological well-being. As hypothesized,
depression was significantly related to parental stress, such that decreases in depressive symptomatology were related to decreases in perceived parental stress. Grandparents who take on the parenting role often must do so under familial circumstances that are complex and challenging (Landry-Meyer, 1999). In this study, for example, GRGs assumed the primary parental function due to their child’s difficulties with employment, drug and/or alcohol addiction, divorce, and death (among other factors). These grandparents may not have been adequately prepared emotionally, physically, financially, and socially for the roles they took on when family crises occurred (Bullock, 2004; Fuller-Thompson & Minkler, 2000; Heywood, 1999). As Boss (2002) and others (Harrison et al., 2000) have noted in their research, life events that occur unexpectedly, non-normatively, and/or without one’s volition can result in feelings of depression, grief, and personal failings. Grandparents suffering from depression may also experience withdrawal, malaise, sleep and eating disruptions, mood swings, and a host of others depressive sequellae (Radloff, 1977). These depressive symptoms may challenge grandparent functioning and caregiving, which may therefore result in perceptions of increased parental stress.

Findings from this study further indicate that American Indian grandparents reported experiencing significantly more depressive symptoms than Caucasian grandparents. While it is possible that Caucasian caregivers were reticent to report their feelings or that sampling bias existed (where less depressed Caucasian caregivers responded and more depressed American Indian caregivers responded to the study), these findings taken at face value suggest that Native caregivers may be experiencing high levels of depression. Differences in perceived stress and burden have appeared among other minorities when compared to majority cultural groups in research and may be an
important consideration for future research with American Indian grandparents raising grandchildren (Burnette, 1999; Cox & Monk 1990; Krause, 1994; Lawton, Rajagopal, Brody, & Kleban, 1992). Depression may be viewed and expressed differently by different cultures and ethnic groups (Radloff, 1977). In some minority cultures, praise and punishment are conducted in private, and individuals are taught that they should not be pointed out for accomplishments or mistakes or draw attention to self (McAdoo, H. P., 1993). To the contrary, individuals from the majority culture appear to externalize their experience, and are taught that it is okay to bring attention to self. Due to these cultural differences, those who are taught to not draw attention to self may have a hard time asking for help when they need it. Psychological distress may be present in these individuals, but it may be hard to identify and treat.

It is also possible that these findings do not reflect depressive symptoms among American Indians, but rather the collective culture of American Indians, where individuals are taught not to stand out or bring attention to self. Rather than measuring depression the study may have captured American Indian deference to the community over self (S. Christopher, personal communication, November 2, 2004).

American Indians see the world through a different lens and have different cultural, religious, and ethnic values and mores than the majority White culture. These differences are exhibited in everyday life as well as through their family systems. American Indians appear to take on the primary caregiver role more readily, for longer periods of time, and appear to have more confidence in their parenting skills than Caucasian caregivers. This may indicate a difference in the perception that American Indians have when it comes to family, as it seems likely that while Native grandparents
do not expect to care for their grandchildren, they perhaps adapt more easily to the role, but not without feelings of sadness (Center for Rural Health, 2003). Further examination of American Indian perspectives, particularly regarding depression, is imperative to fully understand the impact of taking on the parenting role a second time around and to ensure adequate psychological services are available to those grandparents in need.

Parental-Level Variable and Parental Stress

At the parental-level, this study examined the relationship between parental confidence and stress. Findings revealed that parental confidence was significantly related to parental stress, where increased confidence correlated with decreased perceived stress. It seems probable that grandparents who are more knowledgeable about child development and caregiving are more relaxed about performing in the parental role and therefore less stressed. Likewise, grandparents who have more resources and knowledge about legal issues, custody, obtaining medical insurance, finding child care, enrolling the children in school, and accessing community resources may also have more confidence and better coping skills and strategies to reduce stress (Musil, 1998). It is also possible that grandparents who feel less stress in the parenting role are better able to take in new knowledge about parent practices and feel more confident in their ability to perform their caregiving roles.

It is interesting to note that, at least for American Indian grandparents, parental confidence was significantly related to length of time in the caregiver role (this pattern approached significance in the total sample). As grandparent caregivers perform the
primary parental role longer, they appear to gain parental confidence. Many of the responsibilities that fall to grandparent caregivers may be burdensome at first, but are likely to be one time events that the grandparent must get through in order to assume the parenting role (Landry-Meyer, 1999). As grandparents spend more time with their grandchild(ren), they likely settle into a pattern and a routine with their grandchildren. Rules and expectations are set, and the grandchild begins to recognize the parental authority of the grandparent, while the grandparent gains confidence in skills they may not have used in several years. As grandparents continue to successfully navigate the resources available and meet the demands of the parenting role, their knowledge and skill as they relates to parenting likely increases, with resulting decreases in perceptions of stress. A consideration for future research would be systematically assessing the degree of stress grandparent caregivers exhibit with respect to their new role as primary caregiver, which has been under-researched to date.

Community-Level Variable and Parental Stress

Finally, at the community-level, this study examined the perceived social support and parental stress of GRGs. Findings revealed that perceived social support was not significantly related to parental stress; however, a negative trend was revealed in the data suggesting that more support from social networks may be related to decreased parental stress. It is possible that with an increased sample size this relationship would be significant. However, it is also possible that, although grandparent caregivers in this study felt supported by their networks, they were hesitant to ask for tangible help from
their support networks to alleviate stressors in their lives. It is plausible that these caregivers had already exhausted direct aid for their family needs. In addition, as mentioned earlier, residents of rural communities may not want to reveal their familial circumstances to others because of the small town experience and potential lack of confidentiality (Bullock, 2004). Especially in Montana, the “pull yourself up from your bootstraps” ideology is strongly rooted in familial life; thus, grandparents may feel like they have good friends and live in a nice community, yet feel that their stressors are their own to bear.

Differences were noted between American Indian caregivers and their Caucasian counterparts and how they perceived social support. While differences were not significant, it is important to note that cultural differences and different world views may account for why perceived social support was not significantly related to parental stress. It is possible that Native caregivers would have benefited more from a qualitative methodological approach that might have built rapport, trust, and comfort while responding to the survey. In addition, the measure used for social support was part of the Parenting Ladder that also included the measure for parental confidence. These measures may be too closely related to get an accurate measure of perceived social support which is an issue of construct validity. Clearly, more research is needed to understand how social support is experienced among rural grandparent caregivers and how such support may be better utilized to relieve parental stressors.
Predictors of Parental Stress

In addition to examining the bivariate relationships between this study’s variables of interest, this study also examined the five predictor variables regressed onto parental stress. In the first model, depression was the most salient predictor, suggesting that as depressive symptoms increased, stress also was likely to increase. An examination of the length of time in the caregiver role revealed a trend in the data, where longer time spent in the parental role was related to less parental stress. However, as the additional factor of parental confidence was entered into the analysis, the length of time became less salient, whereas depression held. This outcome may be due to the interrelatedness of parental confidence and length of time in the caregiving role, where for some grandparents, increased time in the caregiver role was related to increased confidence.

Adding parental confidence to the model increased the overall variance explained by 18%. As parental confidence increased, parental stress was likely to decrease. When social support was added to the final model, this variable did little to improve the variance explained, accounting for only an additional 1%. Overall, the regression analysis revealed that, when taken together, the best predictors of parental stress were parental confidence and grandparent depression, accounting for 54% of the variance in the analysis. These findings hold implications for intervention, suggesting that with limited funds, focus should be placed on increasing parental confidence, perhaps via educational programming, and decreasing depressive symptomatology, perhaps by implementing services to bolster grandparents’ psychological well-being.
In summary, this study contributes to the extant literature in several ways. First, this study examines grandparents raising grandchildren in rural locales, which to date, is an under-examined topic. Second, this study highlighted differences among American Indian and Caucasian GRGs which has not been examined in the literature to date. And lastly, this study is unique in identifying individual, parental, and community level predictors of parental stress among grandparents raising grandchildren in rural locales. This approach recognizes the complexities of the factors that contribute to parenting stress among grandparents raising grandchildren.

Grandparents who raise their grandchildren in rural areas may face barriers and challenges that are different than their urban counterparts. While research has not been conducted to compare and contrast these two populations, it can be postulated that though stressors may be different, both groups would experience similar levels of stress when returning to the parenting role. However, grandparents in rural locales may be additionally hindered by transportation issues, lack of resources in more rural areas of the state, fewer specialized services, and low awareness and support of the issue of grandparents raising grandchildren. Consequently, rurality should be a consideration in the future for researchers, practitioners, and policymakers.

Finally, this study holds implications for use of the ecological model in future research to examining GRGs. As mentioned previously, grandparents are best understood in the context of their unique situations. The use of the ecological model in this study allowed the examination of variables at different ecological levels which increases our
understanding of how these variables interact not only on a bivariate level, but more importantly, on a multivariate level. The ecological model used in conjunction with a hierarchical regression analysis in this study highlighted the significance of examining stress throughout the different ecological layers.

Study Limitations and Implications for Future Research

Like all studies, this study is not without limitations. Due to the voluntary nature of participation and the use of purposive sampling and a cross sectional design, the generalizability of the study is limited. Moreover, grandparents who were not connected to social networks or who lived in extreme rural areas may not have learned of the study through the recruitment methods which were used. By using a small non-random sample, findings will not be generalizable to a large population, but may speak to the experiences and circumstances of other GRGs living in similar rural areas with similar populations. Caution should be used in extrapolating these data without additional research. Future research using a probability sampling strategy and employing a longitudinal design will go far in broadening the applicability of the findings to larger audiences.

This study was part of a larger study with existing measurement tools already in place. Therefore, this study was limited in the selection of variables used to examine the relationships between individual, parental, community level variables, and parental stress. While all study measures were found to be reliable and valid for use with GRG families, future research should consider additional measures that might further help to explain and elucidate grandparent stress and the correlates of stress.
Future research should also consider adding other demographic and familial variables, such as information on child characteristics (special needs, developmental disability of the grandchild, physical limitations, and behavioral disorders that the grandchild may exhibit) and intergenerational family relations (i.e., between grandparent and parent, parent and child, and grandparent and grandchild). Several researchers have found that rearing children with special needs placed a significant secondary strain on grandparents who were raising them (Bowers & Meyers, 1999; Burnette, 1999; Sands & Goldberg-Glen, 2000; Hayslip, Shore, Henderson, & Lambert, 1998). In addition, data on intergenerational patterns may be useful to shed light on relationship qualities within the family and how these relationships contribute to or ameliorate stress. Unfortunately, data regarding grandchildren or intergenerational relationships were not gathered for this study due to limited survey space and burden considerations for the participants.

The sample for this study was cross sectional; therefore, the data cannot explain causality of the variables. It is important to note that directionality could go from predictor variables to stress or from stress to the predictors. Future research using an experimental design would allow researchers to draw causal conclusions about directionality. Respondent bias was another possible limitation as grandparents may have been afraid to admit that they were experiencing role stress or dissatisfaction as a grandparent raising their grandchild(ren). Future research should also attempt to decrease bias, perhaps by conducting face-to-face interviews where trust is established in the personal interactions between interviewer and respondent.

Cross-cultural researchers should likewise be sensitive to the cultural nuances that exist between and among Native and non-Native peoples. In this study, American Indian
respondents may or may not have felt that the study measures were relevant to their lives. This study was not developed specifically with American Indians in mind; therefore, future researchers should consider conducting research specific to Native populations (Letiecq & Bailey, 2004). American Indians exhibit a more fluid lifestyle where fictive kin are common, and children can be raised for short periods or extended timeframes by members of the family beyond just grandparents (Letiecq & Bailey.) This fluidity is more accepted culturally than it is in the majority culture, which may be one reason that American Indian caregivers in this study seem to have fared better than Caucasian caregivers. Future research is warranted to better understand the circumstances and challenges facing all grandparents raising grandchildren in rural communities, and specifically how grandparents from different racial or ethnic backgrounds can learn from one another in order to improve grandparent and child outcomes.

Another consideration for future research relates to grandfatherhood. There were too few grandfathers in this study to examine this subgroup separately, and although responsibility for the care of grandchildren has been shown to fall predominantly to grandmothers (Minkler, 1999) grandfathers raising their grandchildren is an increasing phenomenon. Research by Hagestad (1985) indicates that grandfathers are taking on more responsibility for the caregiving role, yet exhibit less grandparenting satisfaction than their female counterparts. For many men, the retirement years allow more time for family, and in particular, more time for interaction with grandchildren (Thomas, Sperry, & Yarbrough, 2000).

There has been a significant shift toward father-focused initiatives, and increasing attention is being placed on the important role that fathers play in the
upbringing of their children (Tamis-LeMonda & Cabrera, 2002). Emphasis should also be placed and relationships examined between grandfathers and their grandchildren. While most grandmothers in two parent households indicated primary responsibility for the care of the grandchild (Thomas et al., 2000), grandfathers play a role in raising grandchildren as well, and this contribution merits further attention.

Finally, a deeper understanding of how the variables of interest in this study—length of time in the primary caregiver role, grandparent’s level of income, depression, parental confidence, perceived social support, and parental stress—and other variables not examined in this study—child characteristics, level of involvement of biological parent, child custody status—will shed light on the complex array of stressors that converge when grandparents assume responsibility for their grandchild(ren). Future interventions should utilize research when developing programs and policies in order to best support grandparents as they continue to raise their grandchildren in rural areas.

**Implications for Practice and Policy**

Findings from this study have many implications for researchers, practitioners, and policymakers. This study provides evidence that grandparents raising grandchildren in rural areas are in need of services that will help them to be successful parents to their grandchildren. In order to ensure positive child outcomes in these family constellations, there needs to be a comprehensive support network in place to help decrease the level of parental stress associated with raising a grandchild.
Legislators must begin to draft policies that are specific to the needs of grandparent caregivers. One policy that would begin to support grandparental functioning would be changing the process for grandparents obtaining custody or guardianship of grandchildren (Thomas et al., 2000). In addition to streamlining and making the process easier, providing access to free or low-cost legal help for grandparent caregivers would ease the burden this process puts on grandfamilies. Information about how to obtain services or seek out legal advice should be made accessible through information provided at senior centers, agencies on aging, grandparents support groups, and through the use of the media. There are barriers to the provision of services in rural areas, however, there should be a concentrated effort to reduce the number of obstacles in receiving information about available services. Grandparents often exhibit willingness to care for their families. Recognizing this willingness, agencies that assist families should be more cognizant of the ways in which they can promote their services among rural grandparents while at the same time making it easier for these families to meet their needs.

Grandparents are often the first people contacted to take care of grandchildren when out of home placement is necessary by social service agencies. Grandparents are currently not provided remuneration at the state level for their service unless they go through the foster care training. However, this remuneration seems important, particularly as this study and others have reported low-income levels among this population. At this time, grandparent caregivers are providing the same, if not more stable, care for their grandchildren as foster parents, and as such, should be compensated accordingly by the state. Taking on the care of grandchildren is an enormous financial burden for grandparents who are in the later stages of life and living on a fixed income.
Grandparents raising grandchildren have often been relegated to secondary status from a social service standpoint and under-funded financially on a routine basis (Landry-Meyer, 1999). Families that are not “normal,” or do not fit into the nuclear family mold of a biological father, biological mother, and child, are lumped into the secondary status category. Differential treatment experienced by grandparent caregivers may symbolize the relatively low value placed on grandparent caregivers and the role they play in family preservation. Removing the inequity that exists between kinship care providers and non-kinship caregivers could increase the financial assistance that grandparents receive by $220 per month (Landry-Meyer, 1999; Minkler & Roe, 1993).

Temporary Aide for Needy Families (TANF) grants are available for grandparents and their grandchildren. At this time, work restrictions oblige grandparents to work after a certain time period. This restriction is universal for all recipients of child only grants, but hinders grandfamilies in several ways. First, grandparents may be at or beyond retirement age, in ill health, or lack the skills necessary to engage in the workforce. Second, if the children are not in school, it may be cost prohibitive for grandparents to find quality child care, which can be difficult to find in rural areas. Third, there is a five year cap on receiving TANF benefits, but as this and other studies show, grandparents often care for their children for longer periods of time, if not indefinitely (Thomas et al., 2000). Removing the cap on TANF funding for these families would increase the likelihood that grandparent headed households might fare better economically while caring for their grandchildren.

Many grandparents may lack confidence in their parenting skills and could benefit from parent education. Grandparents likely want to take good care of their grandchildren,
as evidenced by their willingness to take on the responsibility; however, if they have been absent from the parenting role for a period of time, they may be out of touch with current parenting practices. Returning to the parenting role is a difficult and life altering event, and as such additional attention should be given to supporting grandparents in their role as second time parents. Parenting education should focus on providing parents with education on child development, legal rights of grandparents, basic parenting skills, communication and conflict resolution, information on community agencies and resources and transition to the primary caregiver role (Harrison et al., 2000; Strom & Strom, 1992, 1993). Parenting education that is free of cost, and includes child care so parents can attend freely, would greatly assist grandparent caregivers in bolstering their feelings of confidence and competence as parents.

Although this study did not specifically examine grandparents caring for grandchildren who have emotional, physical and mental disabilities, several grandparents noted anecdotally that they felt overwhelmed by the special needs of their grandchildren. Studies indicate that there is a prevalence of grandparents who care for grandchildren with such problems (Hayslip et al., 1998; Thomas et al., 2000). Previous research indicates that those who parent developmentally disabled children experience higher levels of stress in parenting and are at risk for elevated psychological distress (Harrison et al., 2000; Wolf, Noh, Fisman, & Speechly, 1989). Children with developmental disabilities can be challenging emotionally, financially, socially, and may increase stress on grandparents who have taken the responsibility to provide additional care beyond “normal” parenting. Often, grandparents need assistance to obtain appropriate health care
for their grandchildren inclusive of medical treatment, specialized services or equipment necessary for physically disabled children, as well as access to quality mental health professionals for children who may suffer from mental disabilities (Harrison et al., 2000; Wolf et al., 1989). These services are cost-prohibitive for the average person, and may be increasingly so for grandparents on a fixed budget.

Grandparents who take on the role of primary caregiver often do so after a family crisis has demanded intervention for the well-being of the child. Given the unusual and often tragic circumstances that necessitate grandparent involvement, the difficulties experienced by the children may “exacerbate those adjustments associated with middle aged and older grandparents assuming parental roles” (Hayslip et al., 1998, S164). Living with a parent who abuses drugs or alcohol, being subject to abuse or neglect, or the impact of divorce, can clearly be a negative experience for children (Eckenrode, Larid, & Doris, 1993; Furstenberg & Nord, 1985; Hayslip et al.) As such, improved access to counseling and therapy may be necessary for grandparents and grandchildren to work through issues brought about during previous times of conflict and turmoil in their lives, as well as to assist them through transitions they encounter in their new family form.

Respite care programs are an under-realized goal in urban and rural areas. Grandparents may want or enjoy an afternoon or a weekend to relax and possibly participate in the hobbies that they have put on hold or neglected in order to care for their grandchildren. Programs that allow grandparents the chance to have some free time away from their grandchildren would allow them much needed breaks from the often exhausting duties of parenting a second time around and may ameliorate feelings of
depression among this group. A program where grandparents receive respite, or even a chance to network socially with other grandparents, could work in conjunction with a grandchild program where children are able to interact and learn that they have peers who are experiencing similar life events.

Although this study did not find social support to be a significant predictor of parental stress, it still seems likely to be an important component of GRG programming. Research indicates that support groups are a positive and effective way for grandparents to increase their social support network and their parental confidence (Bullock, 2004). Today, support groups are emerging in many communities across the country, but barriers may hold rural grandparents from attending. These barriers include: lack of public transportation, distance between extremely rural areas and more populous areas where support groups meet, lack of child care during meetings, and relatively few support groups to attend, often only one per town/city. There are several online support groups that grandparents can “attend” by simply logging on the internet, however, many grandparents may not be comfortable with computers and unable to navigate the system. In addition, grandparents may be unable to purchase a computer due to financial limitations. Grandparent resources are becoming prevalent on the internet, and one way to help grandparents receive the support they need would be to offer free computer classes for grandparents. If grandparents are not comfortable in a face-to-face support group setting, they may feel comfortable accessing information privately on the computer.

Many of the ideas, new and old, regarding GRGs are reactive in nature—that is they address the problem after the grandchild has already left their parents’ home.
Additional attention should be given to the parents of the grandchild, and the circumstances that lead to their inability to care for their children. There are some instances that are beyond control such as terminal illness, military deployment, and death of a parent. Societal issues such as drug and alcohol use (especially the methamphetamine epidemic), teen pregnancy, parental immaturity, child abuse and neglect, abandonment, difficulties with finances, unemployment, and incarceration of parent(s) need to be examined and future preventative measures should be incorporated in order to avoid parental inability to care for their offspring.

There does not appear to be one decisive way to help grandparents raising grandchildren in America today. Due to the complex nature of grandfamilies, there must be a network of support from all of the ecological levels in order for society to provide comprehensive services to these under-resourced families. Grandfamilies do not fit into categories that were intended for the traditional nuclear family. As such, grandparent headed households should not be denied services simply because they do not fit the nuclear family mold. The family form has become increasingly fluid in recent years, and it is time that agencies, practitioners, and policymakers adapt to and accept these changes in family life in order to meet the needs of grandparents raising grandchildren in rural communities.
REFERENCES


APPENDICES
APPENDIX A

MEMORANDUM FROM HUMAN SUBJECTS ADMINISTRATOR
MEMORANDUM

TO:            Sandra J. Bailey, Ph.D.
                Health & Human Development Dept.

FROM:          Stephen Guggenheim, M.D.
                Human Subjects Administrator

DATE:          July 3, 2002

SUBJECT:       Grandparents Raising Grandchildren - Montana Needs Assessment

The above research, described in your submission of July 3, 2002 is exempt from the requirement of review by the human subjects committee in accordance with the Code of Federal Regulations, Part 46, section 101. The specific paragraph which applies to your research is

___ (b)(1) Research conducted in established or commonly accepted educational settings, involving normal educational practices.

X  (b)(2) Research involving the use of educational tests, survey procedures, interview procedures or observation of public behavior.

___  (b)(4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these specimens are publicly available, or if the information is recorded by the investigator in such a manner that the subjects cannot be identified.

___ Other

Although review by the Human Subjects Committee is not required for the above research, the Committee will be glad to review it. If you wish a review and committee approval, please submit 3 copies of the usual application form and it will be processed by expedited review.
APPENDIX B

HUMAN PARTICIPANTS PROTECTIONS EDUCATION FOR RESEARCH COMPLETION CERTIFICATE
This is to certify that

Marcia Conway

has completed the Human Participants Protection Education for Research Teams online course, sponsored by the National Institutes of Health (NIH), on 04/18/2004.

This course included the following:

- key historical events and current issues that impact guidelines and legislation on human participant protection in research.
- ethical principles and guidelines that should assist in resolving the ethical issues inherent in the conduct of research with human participants.
- the use of key ethical principles and federal regulations to protect human participants at various stages in the research process.
- a description of guidelines for the protection of special populations in research.
- a definition of informed consent and components necessary for a valid consent.
- a description of the role of the IRB in the research process.
- the roles, responsibilities, and interactions of federal agencies, institutions, and researchers in conducting research with human participants.

National Institutes of Health
APPENDIX C

INFORMED CONSENT FORM
SUBJECT CONSENT FORM FOR PARTICIPATION IN HUMAN RESEARCH AT MONTANA STATE UNIVERSITY

Project Title: Supporting Grandparents Raising Grandchildren: An Assessment of Delivery Methods

You are being asked to help with a research project that is looking at different ways of getting support and information to grandparents raising grandchildren. The study also contains questions about how your life has been impacted since you started parenting your grandchildren. You will be asked to respond in writing to some survey questions at the beginning of your participation in the study and again about four months later. You will also be asked to participate in an interview at the end of the four months.

This study is being funded through a grant from the Kappa Omicron Nu Honor Society. Results of the study will be available to you upon request.

The results of this research will provide information to better understand what methods of delivering support and information work best for grandparents raising grandchildren in Montana. You were asked to participate because you are a grandparent raising a grandchild. We are asking grandparents who are attending support groups to participate as well as those who are not attending support groups so that we may determine what services work best for individuals.

If you agree to participate:

- The information you give will be kept private and confidential. The answers to your questions will be identified only by a number. Your name, the name(s) of your grandchild(ren) or town will not be used in any way.
- The responses to the written survey, together with others, will be combined and used for statistical summaries only.
- The responses to the face-to-face interview at four months will be combined and used in summaries. The interviews will be audio taped and transcribed verbatim. Direct quotes will have all identifying information removed. Audio tapes will be destroyed upon completion of the study.
- Your participation will take between 2 and 3 hours of time and you will receive a stipend of $20.00 as a “thank you” for taking time to answer the questions. This will be given to you at the time of the interview.
- We anticipate that there is minimal risk in participating in this study. You may feel uncomfortable talking about yourself or your situation. If that is the case and you do not want to answer some questions, either on the written survey or in the interview, that is okay. If you choose not to participate, it will not affect your participation in the support group or receipt of further informational materials.
- The study may be little if any benefit to you personally.
AUTHORIZATION: I have read the above and understand the discomforts, inconvenience and risk of this study. I, _____________________ (name of participant), agree to participate in this research. I understand that I may later refuse to participate, and that I may withdraw from the study at any time. I have received a copy of this consent form for my own records. I understand that I will be receiving a survey in the mail to complete and return, and that Dr. Sandra Bailey will be contacting me to set up an interview four months later at a place and time that is convenient for me. If I have any questions, I can contact Dr. Bailey at (406) 994-6745 or at baileys@montana.edu; or I can call Dr. Mark Quinn, Chairman of the MSU Human Subjects Committee at (406) 994-5721.

__________________________________________  ____________________________________________
Grandparent Signature  Grandparent Name Printed

__________________________________________  ____________________________________________
Spouse’s Signature (if they choose to participate, and if applicable)  Spouse’s Name Printed

__________________________________________  ____________________________________________
Grandparent’s address  Grandparent’s Phone Number

Sandra J. Bailey, P.I.
APPENDIX D

SURVEY
Section I: In this first section we would like to learn about your experiences today as a grandparent raising a grandchild. The following questions ask about parenting. This is not a test so there are no right or wrong answers. Please write in the number to the right of the question that best describes where you would put yourself on the Parenting Ladder.

The Parenting Ladder

Where would you put yourself on the Parenting Ladder in terms of:

Your knowledge of how children grow and develop? _________
Your confidence that you know what is right for your grandchild? _________
Your ability to create a safe home for your grandchild? _________
Your success in teaching your grandchild how to behave? _________
Your skill at finding fun activities that interest your grandchild? _________

Parenting often is smoother when others are there to help. Where would you put yourself on the Parenting Ladder in terms of:

Other parents to talk to? _________
Someone to help you in an emergency? _________
Someone to offer helpful advice or moral support? _________
Someone for you to relax with? _________
Professionals to talk to when you have a question about your grandchild? _________
Section II: In this section we are trying to determine what type of information might be helpful for you and your family.

**Knowledge of Community Resources**

<table>
<thead>
<tr>
<th>Question</th>
<th>I have this information</th>
<th>I would like this information</th>
<th>I do not need this information</th>
</tr>
</thead>
<tbody>
<tr>
<td>How to register my grandchildren for school?</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>How to find childcare for my grandchild?</td>
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<tr>
<td>How to locate childcare assistance to pay for care of my grandchildren?</td>
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<tr>
<td>How to find respite when I need a break?</td>
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<tr>
<td>Where to locate health care for my grandchild?</td>
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<tr>
<td>Where to locate a dentist for my grandchild?</td>
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<tr>
<td>How to access low-cost housing?</td>
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<tr>
<td>How to get low-cost legal assistance?</td>
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<tr>
<td>How to apply for food stamps?</td>
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<tr>
<td>How to find the nearest food bank?</td>
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</tbody>
</table>
Section III: In this section we would like to learn how your role as a parent to your grandchildren may be affecting you. People describe themselves in a variety of ways. Here are some of the ways people describe themselves. Please indicate the extent to which you agree with the following items:

**Feelings About Yourself**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel that I’m a person of worth, at least on equal basis with others.</td>
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<tr>
<td>I feel that I have a number of good qualities.</td>
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<tr>
<td>All in all, I am inclined to feel that I am a failure.</td>
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<tr>
<td>I am able to do things as well as most other people.</td>
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<tr>
<td>I feel I do not have much to be proud of.</td>
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<tr>
<td>I take a positive attitude toward myself.</td>
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<tr>
<td>On the whole, I am satisfied with myself.</td>
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<tr>
<td>I wish I could have more respect for myself.</td>
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<tr>
<td>I certainly feel useless at times.</td>
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<tr>
<td>Every time I get ahead, something or someone stops me.</td>
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<tr>
<td>Planning only makes a person unhappy, since plans hardly ever work out anyway.</td>
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<tr>
<td>At times I think I am no good at all.</td>
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</tbody>
</table>
Section IV: In this section, we are trying to assess how things overall are going for you. For each of the following statements, check the box that best describes how often you have felt this way during the past week.

**Feelings About How Things Are Going**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Rarely or none of the time</th>
<th>A little of the time</th>
<th>A moderate amount of time</th>
<th>Most or all of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was bothered by things that don’t usually bother me.</td>
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<tr>
<td>I did not feel like eating, my appetite was poor.</td>
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<tr>
<td>I felt that I could not shake the blues even with help from my family and friends.</td>
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<tr>
<td>I felt that I was just as good as other people.</td>
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<tr>
<td>I had trouble keeping my mind on what I was doing.</td>
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<tr>
<td>I felt depressed.</td>
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<tr>
<td>I felt that everything I did was an effort.</td>
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<tr>
<td>I felt hopeful about the future.</td>
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<tr>
<td>I thought my life had been a failure.</td>
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<tr>
<td>I felt fearful.</td>
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<tr>
<td>My sleep was restless.</td>
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<tr>
<td>I was happy.</td>
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<tr>
<td>I talked less than usual.</td>
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<tr>
<td>I felt lonely.</td>
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<tr>
<td>People were unfriendly.</td>
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<tr>
<td>I enjoyed life.</td>
<td></td>
<td></td>
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<tr>
<td>I had crying spells.</td>
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<tr>
<td>I felt sad.</td>
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<tr>
<td>I felt that people disliked me.</td>
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<tr>
<td>I could not get going.</td>
<td></td>
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</tbody>
</table>
**Section V:** In this section, we are asking about how you feel in your parenting role. Please answer the following questions from your role as a parent to your grandchildren by choosing one of the following: Strongly Agree (SA), Agree (A), Disagree (D), or Strongly Disagree (SD).

## My Role As a Parent of My Grandchildren

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Somewhat Agree</th>
<th>Somewhat Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am happy in my role as a grandparent.</td>
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<tr>
<td>There is little or nothing I wouldn’t do for my grandchildren if it were necessary.</td>
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<tr>
<td>Caring for my grandchildren sometimes takes more time and energy than I have to give.</td>
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<tr>
<td>I sometimes worry whether I am doing enough for my grandchildren.</td>
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<tr>
<td>I feel close to my grandchildren.</td>
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<tr>
<td>I enjoy spending time with my grandchildren.</td>
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<tr>
<td>My grandchildren are an important source of affection for me.</td>
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<tr>
<td>Having grandchildren gives me a more certain and optimistic view for the future.</td>
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<tr>
<td>Having grandchildren has been a financial burden.</td>
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<tr>
<td>Having grandchildren leaves little time and flexibility in my life.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Having grandchildren has been a financial burden.</td>
<td></td>
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<tr>
<td>It is difficult to balance different responsibilities because of my grandchildren.</td>
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<tr>
<td>The behavior of my grandchildren is often embarrassing or stressful to me.</td>
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<tr>
<td>If I had it to do over again, I might decide not to take my grandchildren.</td>
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<tr>
<td>I feel overwhelmed by the responsibility of being a grandparent.</td>
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<tr>
<td>Having grandchildren has meant having too few choices and too little control over my life.</td>
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</tr>
<tr>
<td>I am satisfied as a grandparent.</td>
<td></td>
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<tr>
<td>I find my grandchildren enjoyable.</td>
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</tbody>
</table>
Section VI: The ages and situations of Grandparents raising grandchildren vary greatly in Montana. In this final section we want to learn a little more about you and your grandchildren.

1. What was your age at your last birthday? _____ Years

2. Sex: _____ Female _____ Male

3. Ethnicity:
   _____ African American
   _____ Asian of Pacific Islander
   _____ Hispanic
   _____ Mixed Ethnic Heritage
   _____ American Indian
   _____ White/Caucasian
   _____ Other
   _____ Prefer not to answer

4. Marital Status:
   _____ Divorced/Separated
   _____ Married
   _____ Single/Never Married
   _____ Widowed

5. I am employed outside the home.
   _____ No—If no, are you retired? _____ No _____ Yes
   _____ Yes—If yes, the average numbers per week I am currently employed is _____ hours per week.

   What kind of work do you do in your current job? Please be as specific as possible in answering. Include any areas of specialization, for example: “High School—Math.” If you have more than one job, answer for the job for which you work the most hours.______________________________ kind of work.

6. Age and sex of grandchildren I am parenting: (Please list for each grandchild you are parenting.)

   _____ age     _____ male     _____ female
   _____ age     _____ male     _____ female
   _____ age     _____ male     _____ female
   _____ age     _____ male     _____ female

7. Length of time I have been the primary caregiver for my grandchildren:
   _____ years     _____ months
8. Primary reason I am parenting my grandchild(ren)
   Parent(s): (Please check only one)
   _____ Economic/job situation
   _____ Divorce
   _____ Drug/alcohol abuse
   _____ Death
   _____ Incarceration
   _____ Mental health problems
   _____ Other (please specify): _________________________________________________

9. My adult child’s relationship to the grandchild(ren) I am parenting:
   _____ Mother     _____ Father

10. The highest level of education I have completed is:
    _____ Less than high school
    _____ High school diploma
    _____ Some college
    _____ College graduate
    _____ Graduate degree

11. My household’s estimated annual income for 2002 from all income except assistance from the state.
    _____ <$10,000
    _____ $10,001-$20,000
    _____ $20,001-$30,000
    _____ $30,001-$40,000
    _____ $40,001-$50,000
    _____ $50,001-$60,000
    _____ $60,001-$70,000
    _____ >$70,000

12. I am covered by medical insurance or Medicare: _____ No _____ Yes

13. My grandchild(ren) are covered by medical insurance: _____ No _____ Yes

14. I receive monetary help from my grandchild(ren)’s parent(s): _____ No _____ Yes
    If yes, how much do you receive per month_____

15. I receive cash assistance through the Montana Department of Public Health & Human Services to care for my grandchild(ren): _____ No _____ Yes

Thank You!
APPENDIX E

LETTER TO PARTICIPANTS
September 8, 2004

Dear ________,

Thank you for your interest in participating in the Grandparents Raising Grandchildren Study. Enclosed you will find the survey, as well as a stamped, self-addressed envelope for your convenience to return the survey to me. Once you have completed the survey, please drop it in the mail with your consent form.

You will be contacted within four months to complete another short survey, and to set up a time for a brief interview about what you have experienced while raising your grandchild(ren).

If you have any questions about this study, you can contact me at (406) 994-3395 or email me at aconway@montana.edu, Sandy Bailey at (406) 994-6745 or e-mail at baileys@montana.edu or you can contact Dr. Mark Quinn, Chairperson of the Human Subjects Committee, Montana State University at (406) 994-5721.

Thank you again for your participation in the study!

Sincerely,

Annie Conway
Program Coordinator
Montana State University-Bozeman
APPENDIX F

FOLLOW UP LETTER TO PARTICIPANTS
May 19, 2004

Dear ____,

This letter is to follow up the survey that was sent to you on DATE. At this time, I have not received your survey in the mail. The information that you have to offer as a grandparent raising a grandchild is very important, so if you need another copy of the survey, please let me know and I would be more than happy to send you one.

If you have any questions about this study, you can contact me at (406) 994-3395 or email me ataconway@montana.edu, Sandy Bailey at (406) 994-6745 or e-mail atbaileys@montana.edu or you can contact Dr. Mark Quinn, Chairperson of the Human Subjects Committee, Montana State University at (406) 994-5721.

Thank you again for your participation in the study, and I look forward to hearing from you!

Sincerely,

Annie Conway
Program Coordinator
Montana State University-Bozeman
APPENDIX G

SECOND FOLLOW-UP LETTER TO PARTICIPANTS
October 12, 2004

Dear Walter,

Earlier this year you expressed interest in the Grandparents Raising Grandchildren Project and were sent a survey to fill out. We haven’t received a survey from you, and if you are still interested in filling out the survey, we would love to hear from you.

Enclosed you will find another copy of the survey as well as a consent form. The information that you have to offer as a grandparent raising a grandchild is very important, and we need input and stories from as many grandparents as we can. I hope that you will take a few minutes to fill out and return the survey in the postage paid envelope provided.

The October edition of the GRG newsletter came out within this week, as always if you have any ideas or suggestions, please e-mail me or call. I would love to have input and articles from grandparents in Montana.

If you have any questions about the study, you can contact me at (406) 994-3395 or email me at aconway@montana.edu, Sandy Bailey at (406) 994-6745 or e-mail at baileys@montana.edu or you can contact Dr. Mark Quinn, Chairperson of the Human Subjects Committee, Montana State University at (406) 994-5721.

Thank you again for your participation in the study, and I look forward to hearing from you!

Sincerely,

Annie Conway
Program Coordinator
Montana State University-Bozeman
APPENDIX H

THIRD FOLLOW-UP LETTER TO PARTICIPANTS
October 20, 2004

Dear ____,

Earlier this year you expressed interest in the Grandparents Raising Grandchildren Project and were sent a survey to fill out. We haven’t received a survey from you, and if you are still interested in filling out the survey, we would love to hear from you.

Enclosed you will find another copy of the survey as well as a consent form per our phone conversation today. The information that you have to offer as a grandparent raising a grandchild is very important, and we need input and stories from as many grandparents as we can. I hope that you will take a few minutes to fill out and return the survey in the postage paid envelope provided.

If you have any questions about the study, you can contact me at (406) 994-3395 or email me at aconway@montana.edu, Sandy Bailey at (406) 994-6745 or e-mail at baileys@montana.edu or you can contact Dr. Mark Quinn, Chairperson of the Human Subjects Committee, Montana State University at (406) 994-5721.

Thank you again for your participation in the study, and I look forward to hearing from you!

Sincerely,

Annie Conway
Program Coordinator
Montana State University-Bozeman