An exploratory study of the nature of rural social networks and help-seeking
by Elizabeth Carol Veign

A thesis submitted in partial fulfillment of the requirements for the degree of MASTER OF NURSING
Montana State University
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Abstract:
There are many myths about the nature of rural social networks and the independent nature of rural
individuals. This study was conducted for the purpose of providing data about the nature of rural social
networks and the relationship between rural social networks and help-seeking behavior. The conceptual
framework utilized for the study was a systems perspective of man, with the social network comprising
part of the environment which influences individual and social behavior.

An exploratory design was used in order to provide baseline data about rural social networks and
help-seeking behavior. The Social Network Analysis Tool, a self-report questionnaire, was developed
and tested in a pilot study. The tool contained space to list network members by categories of
relationships and a checklist for structural and linkage characteristics. A Guttman-type scale was used
to determine the degree of help-seeking, and forced-choice questions were utilized to obtain
demographic data. The tool was mailed to 300 subjects who were randomly chosen from the telephone
books of the County Seats of 19 Montana counties; the counties had population densities of less than
two people per square mile, and the County Seats were not located within 50 miles of a city with
50,000 or more inhabitants.

A multidimensional analysis of 61 rural social networks was accomplished; three structural and six
linkage characteristics were analyzed. The networks were found to be large and composed primarily of
family members. Network members were geographically close and frequency of contact was
occasional. Different categories of relationships were found to provide a greater number of specific
kinds of help, but the networks, in general, were characterized by relationships that served several
functions. The majority of the sample did not seek help beyond their families when faced with a
distressing event. There were differences in network characteristics for men and women and for
different age categories. There were also differences in network characteristics depending upon the
degree of help-seeking.

Implications for nursing were related to involving the network in client care, providing health
education, planning of health services, and use of network analysis as a tool in nursing practice. Several
hypotheses were formulated for further investigation.
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AN EXPLORATORY STUDY OF THE NATURE OF
RURAL SOCIAL NETWORKS AND HELP-SEEKING

by

ELIZABETH CAROL VEIGN

A thesis submitted in partial fulfillment
of the requirements for the degree
of

MASTER OF NURSING

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Conceptualization of Man as an Open System
ABSTRACT

There are many myths about the nature of rural social networks and the independent nature of rural individuals. This study was conducted for the purpose of providing data about the nature of rural social networks and the relationship between rural social networks and help-seeking behavior. The conceptual framework utilized for the study was a systems perspective of man, with the social network comprising part of the environment which influences individual and social behavior.

An exploratory design was used in order to provide baseline data about rural social networks and help-seeking behavior. The Social Network Analysis Tool, a self-report questionnaire, was developed and tested in a pilot study. The tool contained space to list network members by categories of relationships and a checklist for structural and linkage characteristics. A Guttman-type scale was used to determine the degree of help-seeking, and forced-choice questions were utilized to obtain demographic data. The tool was mailed to 300 subjects who were randomly chosen from the telephone books of the County Seats of 19 Montana counties; the counties had population densities of less than two people per square mile, and the County Seats were not located within 50 miles of a city with 50,000 or more inhabitants.

A multidimensional analysis of 61 rural social networks was accomplished; three structural and six linkage characteristics were analyzed. The networks were found to be large and composed primarily of family members. Network members were geographically close and frequency of contact was occasional. Different categories of relationships were found to provide a greater number of specific kinds of help, but the networks, in general, were characterized by relationships that served several functions. The majority of the sample did not seek help beyond their families when faced with a distressing event. There were differences in network characteristics for men and women and for different age categories. There were also differences in network characteristics depending upon the degree of help-seeking.

Implications for nursing were related to involving the network in client care, providing health education, planning of health services, and use of network analysis as a tool in nursing practice. Several hypotheses were formulated for further investigation.
Chapter 1
INTRODUCTION

In working with a rural population over the past six years, this researcher noted an apparent discrepancy between the value rural individuals seemed to place on relying upon themselves for survival and what appeared to be an abundance of help both given and received by these same individuals. Health professionals often identify "achieve independence" as a broad goal for their clients. The federal government has recently promoted the idea of independence (self reliance) with its emphasis on "new federalism." The notion that people function independently of others is a myth; everyone is dependent upon others for continued survival. A common finding in sociology research is that individuals tend to help others whom they know, interact with frequently, and like (Homans, 1950). Furthermore, people do not exist as single entities; they exist as part of a complex, structured system.

According to various nurse theorists (Johnson, 1980; Neuman, 1980; Rogers, 1980), human beings are open systems in constant interaction with their environment. The environment can be viewed as a network of subsystems which includes family, friends, neighbors, social acquaintances, community, and the physical surroundings. The individual interacts with each of these subsystems, and they in turn
interact with one another. Due to this ongoing exchange between subsystems, the individual person's behavior will be largely influenced by the values, norms, and rules of the environment with which he interacts. The nature of the environment and its effects on health behavior are important factors to be considered in the provision of holistic nursing care.

The concept of social networks is a means by which nurses and other health professionals can assess both the type of relationships an individual forms with the subsystems in the environment and the characteristics of those relationships. As McKinlay (1972) states in a review of the literature on the utilization of health services, "It is perhaps altruistic to point out that the family, and its associated kin and friendship networks, are important influences on health and illness behaviors, yet there have been remarkably few attempts to specify the nature of such influences" (p. 139).

According to available empirical data, social networks have been studies in relation to the following variables: help-seeking (Gourash, 1978); utilization of health services (McKinlay, 1973; Salloway and Dillon, 1973); and the stress buffering role of support systems (Gore, 1978; Lin, Ensel, Simeone, and Kuro, 1979; Nuckolls, Cassell, and Kaplan, 1972). Many of these studies concluded that the nature of the social network is important in influencing the behavior of individuals, and utilization and function of the network are
related to specific network characteristics.

These studies, which were all conducted in urban areas, speculated that there are differences between rural and urban social networks. It is commonly believed that rural people have a large network of family, friends, and neighbors who are relied upon to provide various kinds of help. Rural individuals are supposed to be geographically close to their family and extended kin, who constitute the greatest proportion of network members. Another myth about rural networks is that they are composed of many individuals who have known one another for long periods of time. There is another widely held belief that although this vast network of helping individuals exists in rural areas, rural individuals are extremely independent.

There was no empirical data to support these myths, and the findings from urban network studies could not be applied to rural residents. Therefore, in order to investigate the myths about rural networks and the supposed independence of rural individuals, the researcher decided to conduct an analysis of rural social networks and their relationship to help-seeking behavior.

Problem Statement and Purpose

If man is viewed from a systems perspective, it is conceivable that an individual's social network will have an influence on the individual by exerting pressure to conform to its norms and values.
Providing holistic nursing care requires the involvement of the social network to provide support, advice, or assistance for clients. Therefore, there is a need to assess the usefulness of the social network concept as a systems approach to nursing research and practice, and there is also a need to assess the nature of rural social networks and their relation to help-seeking behavior.

Network characteristics have been shown to be related to a variety of variables. Psychiatric patients who had daily contact with a tie in their networks were more likely to receive help with personal care and performing tasks than patients who had less frequent contact (Hammer, 1963). Network members who are not contacted as often as others can be important resources within the network. Granovetter (1973) found that network members who were contacted infrequently were an important resource for locating new job opportunities. Networks in which most of the members knew one another were associated with the provision of social and emotional support (Craven and Wellman, 1973; Hirsch, 1979). Bott (1971) found that the degree of segregation of conjugal roles varied directly with the degree to which network members knew one another. Hospitalized medical and psychiatric patients were found to have networks that differed in structure and function (Tolsdorf, 1976). Social networks have been identified as sources of help during times of crisis (Lieberman and Mullan, 1978; Quarantelli, 1976). Networks have been found to be significant
modifiers of the negative health-related responses to stress (Gore, 1978; Lin, Ensel, Simeone, and Kuro, 1979; Nuckolls, Cassel, and Kaplan, 1972).

Of the studies reviewed, only two contained any reference to rural networks. One was a study by Gore (1978) in which she found that rural unemployed men had significantly higher mean values on support measures than the urban respondents; "rural" was a community located outside of a large metropolis. The other investigation, which was conducted in Australia, looked at the incidence and degrees of friendship in rural and urban areas (Sutcliffe and Crabbe, 1963). "Rural" was defined as outside the three major cities in the state of New South Wales, and zones were established based on the number of persons per inhabited acre; the range was Zone I, 24.2 persons/acre through Zone V, less than 1.9 persons/acre. The investigators found that there were no significant differences in the incidences of friendly contacts between rural and urban groups.

Only one study provided some baseline data about the characteristics of urban networks (Shulman, 1975). This study examined the networks of 347 respondents who resided in a large metropolis and who were at various stages in the life-cycle. Life-stage variations were noted in (a) the composition of the networks; (b) the stability of the networks; (c) exchange of services; and (d) the degree to which network members knew each other.
Several conclusions were drawn based on these studies. The characteristics of the network did have an influence on the utilization and function of the network, and the networks were a source of help. Although there were several studies which related social networks to other variables, there was a lack of any substantial baseline data about the characteristics of urban networks. There was no empirical evidence that there were any differences between urban and rural social networks; in fact, there was no documentation about the nature of rural social networks or rural help-seeking behavior.

Based on these conclusions, an exploratory study was proposed for the purpose of providing data about the nature of rural social networks, and the relationship between rural social networks and help-seeking behavior. The specific questions the study proposed to investigate were:

1. What are the structural and linkage characteristics of rural social networks?
2. When faced with a distressing event, do rural individuals seek help from their network or rely upon themselves?
3. Are there differences in the network structural and linkage characteristics of those individuals who seek help for a distressing event versus those who rely upon themselves?

Definition of Terms

As the social network concept has developed, a wide variety of
terms have emerged with different meanings. The use of differing terminology has created problems in research because there has been a lack of consistency in how variables have been operationalized. For the purposes of this study, the following definitions of terms will apply.

**Social Network.** The social network of an individual (the focal person) is composed of family, friends, neighbors, and associates who the focal person considers important and with whom the focal person has contact at least once a year. The characteristics of these linkages as a whole may be used to interpret the social behavior of the persons involved (Mitchell, 1969, p. 2).

**Network structural characteristics.** There are three structural characteristics in this study:

1. **Style:** the social network of an individual has certain normative contexts for the relationships contained in the network; one of these is usually primary and designates the style (Mitchell and Trickett, 1980, p. 31). The style may be primarily family, friend, neighbor or associate.

2. **Range:** the number of persons in direct contact with the focal person (Mitchell, 1969, p. 19); the size.

3. **Density:** the proportion of people in the network who know one another (Kaplan, Cassell, and Gore, 1977, p. 54).

**Network linkage characteristics.** The linkage characteristics
describe the nature of the relationships that the focal person has with the members of his network. There are six linkage variables in this study:

1. **Frequency**: how often the focal person has contact with a network member. The contact may be frequent, occasional, or rare.

2. **Dispersion**: how many miles away from the focal person a network member lives. Dispersion is an indication of the accessibility of the network members in terms of geographic proximity (Mitchell and Trickett, 1980, p. 31).

3. **Content**: the meaning which persons in the network attribute to their relationships (Mitchell, 1969, p. 20); i.e. the functions served by each linkage. The content exchanges include support, advice, financial/material aid, and task-oriented assistance.

4. **Multiplexity**: the number of content exchanges provided by a linkage. A linkage is unidimensional if it provides only one content exchange; a linkage which provides two or more content exchanges is multidimensional (Mitchell and Trickett, 1980, p. 31).

5. **Reciprocity**: the degree to which support, advice, financial/material aid, and tasks are given and received within each linkage. A linkage is reciprocal for a content
exchange if that exchange is both provided for and provided by the focal person within that linkage.

6. **Symmetry**: the degree to which the total number of content exchanges provided for the focal person equals the total number of content exchanges provided by the focal person. A symmetrical linkage has an equal amount of content exchanges provided for and provided by the focal person; an asymmetrical linkage has an unequal number of content provided for and provided by the focal person.

**Rural.** Refers to residing in an area which (a) has a population density of less than two people per square mile, and (b) is not located within 50 miles of a city with 50,000 or more inhabitants.

**Distressing Event.** Those events for which an individual would seek support, advice, or assistance. The event will vary between individuals depending on whether or not it is perceived as troublesome.

**Help-Seeking.** Any communication about a distressing event which is directed toward obtaining support, advice, or assistance from one's social network. This is a modification of Gourash's (1978) definition.

**Self-Reliance.** Refers to not seeking support, advice, or assistance from any resource other than one's self when faced
with a distressing event.

The following chapter will provide a conceptual framework and review of literature related to social networks. The remaining chapters present the methods, findings, and conclusions of the study.
Chapter 2

CONCEPTUAL FRAMEWORK AND REVIEW OF LITERATURE

The purposes of this chapter are to establish the conceptual framework for the study and provide a review of pertinent literature. The social network concept has been related to (a) the study of organizations, (b) the analysis of societies and groups as open systems, (c) help-seeking behavior, (d) support systems, and (e) utilization of health services. Because the last three of these research areas pertain to functions of the network and are related to help-seeking and health behavior, they constitute the major literature review. Also included in the review are studies which have examined the structural and linkage characteristics of networks in relation to specific other variables.

Conceptual Framework

Human beings are part of a complex, open system which consists of three levels - the microsystem, the macrosystem, and suprasystem. Each of the smaller units is contained within the next larger unit, and there is a constant dynamic interaction that occurs between all three levels. The suprasystem is composed of the environment, the macrosystem is the individual, and the biological and psychological systems of the individual comprise the microsystem (Figure 1).

There are two dimensions to the environment or suprasystem. The
Figure 1. Conceptualization of Man as an Open System.
first dimension consists of the physical surroundings which include the geophysical characteristics of locality, altitude, climate, and landscape. The second dimension consists of the social structure within which the individual exists. How one conceptualizes the network of an individual is dependent on one's conception of the environment.

The concept of a network was first introduced by J. A. Barnes (1977) in his 1952 study of a Norwegian fishing village. He described a network of ties among people in the following way:

The image I have is of a set of points some of which are joined by lines. The points of the image are people, or sometimes groups, and the lines indicate which people interact with each other. We can of course think of the whole of social life as generating a network of this kind. For our present purposes, however, I want to consider ... that part of the total network that is left behind when we remove the groupings and chains of interaction which belong strictly to the territorial and industrial systems ... what is left is a network of ties of kinship, friendship, and neighborhood. This network runs across the whole of society (p. 237).

Bott (1977) referred to a network in her 1953 study in the following way:

A social configuration in which some, but not all, of the component external units maintain relationships with one another. The external units do not make up a large social whole (p. 291).

These conceptualizations of a network either comprise a more general approach to the environment in which the network is part of a social whole (Barnes), or they comprise a limited approach in which
the network forms the environment of the individual (Bott). For the purposes of this study, the environment is viewed as containing the entire social context in which an individual exists; therefore, the network of an individual will form part of a larger whole. It is also believed that the network and therefore, the larger social whole, contain certain norms, values, and rules. Because of the constant interaction between the individual, the network, and the larger social context, there will be pressure exerted on the individual to conform to these norms. Mitchell (1969) provides a conceptualization of a network which is more applicable to the systems perspective of man, as his definition of a network is based on interaction. He defines a network as:

A specific set of linkages among a defined set of persons, with the additional property that the characteristics of those linkages as a whole may be used to interpret the social behavior of the persons involved (p. 2).

For the purposes of this study, Mitchell's conceptualization is utilized with one addition: the network as he defines it makes up part of a larger social context.

Networks are composed of individuals who select certain other individuals to share in the network. The choice about who is included in the network is affected by situational and personal factors (Bott, 1971). Some network analysts assume that people form relations based on certain rewards and costs (Jackson, Fischer, and Jones, 1977).
members in the network are utilized to meet certain needs and interests; therefore, an individual network member is both a manipulator and an object of manipulation within the network.

Network analysis does not, in itself, represent a theory; rather, it is a tool which can be applied to the study of the structure and content of interpersonal relations (Fischer, 1977). It allows an examination of the structural and linkage characteristics of the relationships an individual forms with the social components of the environment. By analyzing these relationships and the interactions that characterize them, we are able to understand both individual and social help-seeking behavior.

The social network concept has not been utilized extensively in nursing research; an exception is research that focuses on support systems, which comprise a part of the social network. Since network analysis can help us to understand health-related behavior, its use as a tool in nursing research is needed in order to demonstrate its application to nursing practice.

Review of Literature

Social Networks and Help-Seeking

The majority of studies related to help-seeking have utilized the network concept in order to determine which person or primary group was consulted for help in different situations. The findings were as
varied as were the situations studied.

In a study of coping mechanisms used by individuals in response to a wide variety of common life strains, it was found that self-reliance was more effective than help-seeking for child-rearing concerns and marriage strains (Pearlin and Schooler, 1978). A similar finding can be cited in Tolsdorf's (1976) study of hospitalized psychiatric and medical male patients in which he found that individual mobilization was the most popular coping mechanism activated in response to a perceived stressful situation, and network mobilization was the second coping mechanism activated. In a study of how parents coped with the premature birth of a baby, Caplan (1960) found that they sought help for tasks and support from kin, friends, neighbors, and professionals.

In contrast, other studies found that professionals were not a source of help, but various network members were. In times of disaster, family and close friends were sought out, but public agencies were at the bottom of the help-seeking hierarchy (Quarantelli, 1960). In a study of 5600 urban women which examined the extent to which women of different education and racial backgrounds established contact with professional and non-professional helpers for assistance with family problems, Rosenblatt and Mayer (1972) found that relatives and friends were more likely to be consulted than were professionals; despite the fact that there was
less satisfaction reported for help received from relatives and friends. Litwak and Szelenyi (1969) reported that neighbors and relatives were equally helpful for a one-day problem (stomach ache), but family members were most helpful for a long-term problem (broken leg). In this same study friends were found to be most helpful for situations subject to fluctuation, such as child-rearing concerns or dealing with in-laws. This was a conflicting finding when compared with Pearlin and Schooler's (1978) study. However, Pearlin and Schooler's sample consisted of both men and women, and Litwak and Szelenyi's sample was all women.

In an investigation of who was consulted for crisis events or major life transitions, Lieberman and Mullan (1978) found that if subjects turned to their networks for help, most turned to their mate for advice and assistance, friends and relatives were next in order, and co-workers and children were last; neighbors were rarely called upon for help. These investigators also reported that there was no evidence that help-seeking reduced distress, even when several variables were controlled for; in fact, there was a tendency for those who sought help, particularly professional help, to function less adequately. The researchers postulated that perhaps seeking help and obtaining functional help are not the same thing.

Patterns of support reported by 293 urban men who experienced a serious illness (myocardial infarct) showed that family and friends
were most often indicated as very helpful and minimal use was made of institutional agencies (Croog, Lipson, and Levine, 1972). The most frequently cited form of help was "moral support," which was received from kin, friends, and neighbors; neighbors provided less than the other two categories. Financial aid was provided most by kin, less by friends, and least by neighbors. Neighbors were reported as providing the greatest number of services. Operational definitions for more support and services were not provided; however, the investigators perceived that services and financial aid could be classified as moral support, since support could be anything done for the patients which made them feel better, encouraged them, or improved their spirits.

Although most of these studies cited family, friends, and neighbors as sources of help, one study identified a network of informal community members who were a major source of assistance. Leutz (1976) found that in East Harlem, New York, there were informal caregivers such as spiritualists, merchants, and clergymen to whom people turned for assistance with alcohol and drug-related problems.

Booth and Babchuck (1972) defined two types of interaction that an individual could have with other network members when seeking advice about whether or not to utilize a new health care facility. "Expressive" referred to counsel that provided assurance for the individual, diversional activities, or reassurance that close ties would not be severed regardless of the diagnosis or what treatment was
needed (p. 95). "Instrumental" referred to counsel which evaluated medical services, made a diagnosis according to symptoms, and assisted the individual to cope with the external environment (p. 95). Friends and acquaintances provided instrumental activities, and relatives provided expressive interactions.

Social Networks and Support

Several studies have examined support in relation to social networks. Support systems comprise one part of the social network; other components provide different functions within the network. Because support is one function served by social networks and studies have related support to well-being, a review of some pertinent studies is provided.

In a longitudinal investigation of the physical and mental health consequences of unemployment for 100 men, Gore (1978) found that social support seemed to modify the severity of psychological and health-related responses to job termination. Lin, Ensel, Simeone, and Kuro (1979) studied the effects of social support and stressors on illness for 170 Chinese-Americans. The study utilized the Holmes and Rahe Social Readjustment Rating Scale to measure stress, a nine-item social support scale, and a scale of psychiatric symptoms to measure illness. A major finding was that social support accounted for 62 percent of the explained variance in psychiatric symptoms, independent
of marital status, occupational prestige, and stressful life events.

Nuckolls, Cassell, and Kaplan (1972) investigated complications of pregnancy in relation to stress (measured by the Social Readjustment Rating Scale) and psychosocial assets (support). The findings indicated that neither the life-change scores (stress) nor the amount of support was significantly related to complications when considered along. However, when they were considered conjointly, the findings indicated that if there was a high life-change score before and during pregnancy accompanied by a low support score, 90 percent of this group had one or more complications. If the life-change score was high, but there were also high support scores, then only 33 percent had complications.

Social Networks and Utilization of Health Services

The social network model has been used in studies related to utilization of health services in order to determine if it is a significant variable related to use of services. Booth and Babchuck (1972) examined the interpersonal networks of 800 non-institutionalized urban middle-aged and elderly individuals to determine what factors affected the decision to utilize a new health care facility. They found that 86 percent of those who sought care under less than emergent conditions consulted others. Kin were consulted most frequently, friends and acquaintances next, and
professionals were almost never consulted.

McKinlay's (1973) investigation of the role played by family, kin, and friends in the utilization of services showed that network structure was important. He examined the network structure of utilizers and underutilizers of a maternity clinic in Aberdeen, Scotland. The underutilizers had fused or interlocking kin and friendship networks characterized by a higher frequency of interaction as compared to utilizers. He postulated that an interlocking network would confront the underutilizer members with similar valves, norms, and attitudes because members would tend to interact independently of the focal person. Utilizers had differentiated networks characterized by a lower frequency of interaction independent of the focal person; therefore, they were more likely to receive varying advice and were freer to accept or reject advice (p. 288).

Salloway and Dillon (1973) investigated how networks affected the utilization of health services for an illness. They found that the style of network was an important factor. Friend networks which exhibited high frequency of contact were associated with less delay in the utilization of services during a specific illness episode than were family networks; family networks were associated with reduced rates of utilization.
Network Structural and Linkage Characteristics

Some researchers have conducted studies which consisted of detailed analyses of social networks. These researchers have concerned themselves with examining the structural and linkage characteristics of networks in relation to other variables.

Elizabeth Bott was an early pioneer in social network analysis. In 1953 she conducted an exploratory investigation of the relationships of 20 couples who resided in London, England (1971). She collected data through the use of in-depth interviews for the primary purpose of explaining the variations that occurred in the way husbands and wives performed their conjugal roles. Much of the interpretation of the findings of the study was related to the connectedness of the networks. Bott found that if the family's kin network was close-knit, there was a greater likelihood that the family would visit their kin. She concluded that frequent contact would provide more opportunity for aid and services to be rendered, but it would also put pressure on the family to keep up kinship obligations. In other words, if the family was to reap the benefits of support and aid, then it had best conform to the relatives' values. The major finding of Bott's study was that the degree of segregation in the role-relationships of husband and wife varied directly with the connectedness of the family's network. The more connected the network was, the more segregation there was between the husband's and wife's
roles; the more dispersed the network was, the less segregation there was between the roles of husband and wife.

Hirsch (1979) examined the social networks of 32 college students in order to identify the psychologically important network functions and variables. The Social Network Questionnaire was developed by the researcher to obtain data about network size and density and to measure the subjects' satisfaction with their networks. In addition, a daily log was maintained by subjects to gather data about with whom in the network they interacted, the type of interaction, and how satisfied they were with the interaction. Density was found to be a critical social network variable; high density was associated with more social and emotional support. Multidimensional networks were associated with greater network satisfaction. The investigator concluded that networks characterized by low density and multidimensional linkages appeared to favor more varied interactions and greater role complexity.

In a study of the strength of network linkages, Granovetter (1973) examined the nature of the linkages (he referred to it as a "tie") between men who had recently changed jobs and the individuals who had provided them with information about the job. The investigator used frequency of contact to measure the strength of the tie. The findings indicated that weak ties were an important resource in locating new jobs.
Oliveri and Reiss (1981) investigated the network characteristics of 82 families in order to determine how families shaped and structured their ties to the extended family. The major finding of the study was that nuclear families with uniform intra-family values had the most close-knit network of kin, in which there would most likely be a similarly high level of uniformity of values and norms.

McLanahan, Wedemeyer, and Adelberg (1981) concluded that network structure was closely associated with the type of support that was provided for single mothers. The investigators concluded the following based on their findings: loose-knit networks were supportive of women who were attempting to establish a new identify; close-knit networks were supportive for women who were attempting to maintain their existing identities. The researchers also concluded that variables such as marital status, household status, proximity of relatives, and frequency of contact were not adequate as measures of the quantity or quality of social resources.

In an investigation of relationships over the life-cycle, Shulman (1975) examined the network structure and linkage characteristics of 347 randomly selected individuals who resided in a large metropolis. Data were obtained by a structured interview conducted in the subjects' homes. Subjects were asked to list only six network members in order of closeness; persons living in the same household were excluded. The most frequently named network members were friends;
younger respondents (aged 18-30) were more likely not to name any kin, and the oldest group (aged 45 or older) was more likely to name a large proportion of kin. Close-knit networks were characterized by frequent contact, higher than the average exchange of content, and stable membership. Density was found to be strongly related to frequency of contact or exchange of content. The overall conclusion was that the nature of the networks did vary according to the life-cycle stage of the respondents.

Summary
Four broad areas of social network research have been reviewed; they included help-seeking, support systems, utilization of health services, and general network analyses as they related to other variables. Some of these studies have yielded consistent findings, but others have shown a diversity in their findings.

Studies related to help-seeking have not provided consistent results. In two studies, self-reliance was found to be a primary coping mechanism and social network utilization was a secondary coping mechanism (Pearlin and Schooler, 1978; Tolsdorf, 1976). Other studies have concluded that the network was a major source of advice or assistance, but there were any number of network members who were relied upon depending upon the situation for which the focal person sought help. Relatives and friends were consulted by women for help
with family problems (Rosenblatt and Mayer, 1972), and friends were a major source of help for child-rearing and in-law problems (Litwak and Szelenyi, 1969).

In times of disaster public agencies were rarely utilized for help; rather, family and close friends were a major source of assistance (Quarantelli, 1960). Friends and neighbors have been found to be helpful for a one-day problem and family were most helpful for a long-term problem (Litwak and Szelenyi, 1969). During times of crisis or major life-transitions, individuals who sought help from their network sought advice and assistance first from their spouse, second from friends and relatives, and least from co-workers (Lieberman and Mullan, 1978). In the same study, neighbors were rarely relied upon by the subjects. Men who had suffered a myocardial infarct reported they received moral support from kin, friends, and neighbors, in that order; financial aid was received from kin and friends, and services were received from neighbors (Croog, Lipson, and Levine, 1972).

In most of these studies about help-seeking there has been a lack of consistency in defining the categories of help which are provided for or sought out by individuals. There were few studies which provided data about what kind of content exchange occurs between people on a day-to-day basis; rather, they looked at a given problem situation and who the focal person sought help from for the problem.
The majority of the studies did not contain any network structural analysis, and this is an important variable to consider in understanding help-seeking behavior.

Studies which examined the stress-buffering role of support systems consistently found that they did modify the negative health-related responses to stress (Gore, 1978; Lin et al., 1979; Nuckolls et al., 1972). Since support systems are one part of the social network, these studies demonstrate that maintaining health is an important function of the network. The definitions of support in these studies were extremely varied and indicated the need for some consensus about what constitutes support.

Network structure has been found to be an important variable in relation to utilization of health services. A less dense network was found to be associated with higher utilization of a maternity clinic by pregnant women (McKinlay, 1973). Family style networks were associated with a delay in utilizing a health service, and friend style networks were associated with less delay (Salloway and Dillon, 1973). In determining whether or not to use a new health care facility, 86 percent of the subjects in Booth and Babchuck's study (1972) consulted their network first. These studies indicated that the network does have an influence on health behavior. However, the majority of the samples in these studies were women; thus, there is a need for inclusion of more men in such studies in order to determine
if there are differences in patterns of utilization dependent upon sex.

Network analyses of structural and linkage characteristics have found that some of these variables are related to the type, quality, and quantity of help provided, while other network characteristics were not found to be accurate measures of either the quality or quantity of help. High density was found to be related to the provision of more social and emotional support (Hirsch, 1979) and the type of support that was provided for single mothers (McLanahan et al., 1981). Multiplexity has been associated with greater network satisfaction (Hirsch, 1979). The frequency of contact the proximity of relatives were not found to be associated with the quality or quantity of social resources (McLanahan et al., 1981). In addition to these findings, network characteristics have been found to vary according to life-cycle stages (Shulman, 1975) and to be related to the degree of segregation of husband and wife roles (Bott, 1971).

There have been numerous studies which have utilized social network analysis, but there were no empirical data to substantiate the myths about rural networks or rural help-seeking behavior. The literature reviewed did demonstrate that social network analysis was a useful tool for examining individual and social help-seeking behavior. Based on these conclusions, an exploratory study was proposed for the purpose of providing data about the nature of rural social networks
and the relationships between rural social networks and help-seeking behavior.
Chapter 3

METHODS

This chapter provides a description of the research design, the instrument, the pilot study, how subjects were chosen for the study, data collection and recording, and data analysis.

Design

The design of the study was developed to be consistent with the purpose of the study which was to provide data about the nature of rural social networks and rural help-seeking behavior. The specific questions the study investigated were:

1. What are the structural and linkage characteristics of rural social networks?

2. When faced with a distressing event, do rural individuals seek help from the network or rely upon themselves?

3. Are there differences in the network structural and linkage characteristics of those individuals who seek help for a distressing event versus those who rely upon themselves?

An exploratory descriptive design was chosen because there were no data available about rural social networks and rural help-seeking behavior. Due to insufficiencies in the tools utilized for prior network analyses, the Social Network Analysis Tool (SNAT) was developed for data collection. A pilot study was conducted to test the tool for clarity and to determine when would be the most appropriate time to collect data, given the time-consuming and
seasonal nature of farm/ranch work. In order to gather as much data as possible and to curtail costs, a mail survey was utilized for both the pilot study and the actual study.

Instrument Development

The Social Network Analysis Tool (SNAT) was developed to gather data (Appendix A). Tools that had been used in prior studies were found to be insufficient for the following reasons: (a) all of them limited the number of network members who could be listed; (b) some excluded important network members such as people residing within the same household; (c) they did not allow for data collection regarding reciprocity of content exchanges; (d) the types of content exchanges were too limited or defined too broadly; and (e) some tools only measured certain network variables rather than providing a network analysis.

The tool was developed by incorporating components from various studies with the intent that sufficient data could be obtained to conduct a complete network analysis. The self-report questionnaire also included items about demographic characteristics and help-seeking behavior. The reliability and validity of the SNAT were not established. It was doubtful whether concurrent validity could be established since there were no known measures for social networks or
help-seeking which had reliability and validity data available for them.

The following discussion describes each of the major sections of the questionnaire and the variables that were contained in each of those sections.

**Network Structural Characteristics**

**Network membership.** The subject (focal person) was asked to list as network members only those people in their lives who were important to them. Important people were defined as those persons (a) with whom they had an ongoing relationship; and (b) who provided them with support, advice, or assistance; and (c) with whom they had contact by phone, letter, or face-to-face at least once a year.

**Style.** The style of the network was measured by having the focal person categorize the network members according to the type of relationship they had with them. Each network member was to be placed in the one category which best described the relationship the focal person had with them. The categories included: "Family" were those persons who were kin, including the spouse and children; "friends" were those persons whom the focal person considered to be friends; "neighbors" were those important people who lived near them, but were not listed in any other category; and "associates" were those important persons with whom they came in contact for a common reason.
(such as a co-worker, club or church member) and had not been listed in any other category. Space was provided for the subject to list up to 56 members in each category.

**Range.** The range constituted the total number of individuals listed by the focal person.

**Density.** The density was measured by having the focal person indicate for each network member listed, approximately how many of the other network members that individual knew.

**Network Linkage Characteristics**

**Frequency.** The frequency of contact was measured by having the focal person indicate for each individual listed, how often they had face-to-face, phone, or letter contact with them. The choices were: "frequently" - at least twice a month; "occasionally" - less than twice a month, but more than once a year; "rarely" - once a year or less.

**Dispersion.** The dispersion was measured by having the focal person indicate for each network member listed, approximately how many miles away from the focal person they lived.

**Content.** The content of the linkages was obtained by having the focal person check which of four content exchanges each network member provided for the focal person and which of the four content exchanges was provided by the focal person for each network member. The content
exchanges and their definitions were as follows. "Support" referred to the provision of encouragement, personal warmth, love, and emotional support. "Advice" referred to the provision of important information, specific recommendations, referral to another person, or guidance on how to solve a problem. "Financial/material aid" referred to the provision of money, food, clothing, or the borrowing or loaning of equipment. "Tasks" were providing transportation, babysitting, helping with household or work duties, helping with the daily care of family members, and other similar tasks.

**Multiplexity, reciprocity, symmetry.** These variables were measured from the content data provided. Multiplexity was determined from the number of content exchanges contained in a linkage. Reciprocity was determined by whether or not a specific content exchange was provided for and provided by the focal person in each linkage. A linkage was considered symmetrical if an equal amount of content was provided for and provided by the focal person.

**Help-Seeking vs. Self-Reliance**

A Guttman-type scale was developed to measure the degree of help sought when the subject was faced with a distressing event. The choices ranged from not seeking help from anyone (self-reliance) through seeking help from the entire network. A distressing event was not defined, the rationale being that some people may perceive an
event as distressing while others may not. It was implied in the way
that the question was asked that a distressing or troublesome event
was one for which you might seek advice, support, or assistance.

Demographic Characteristics

The demographic data were obtained by using a forced-choice
question format, with the exception of occupational data which were
open-ended. The following data were obtained: age, sex, marital
status, occupation, place of residence (in town vs. farm/ranch),
length of time subject resided in the present area, and length of time
the subject's family resided in the area.

Comments. An area was reserved for the subject to write in
general comments.

Pilot Study

Purpose

A pilot study was conducted for the purposes of evaluating the
clarity of the tool and determining when would be the best time to
send the questionnaires to rural residents. The instruments used, the
subjects, data collection, and results are discussed separately.

Instruments

The first draft of the SNAT (Appendix B) was utilized to collect
data. The major difference between the SNAT used in the pilot study
and the final tool used in the study was the help-seeking question in Part Two. The pilot study tool asked the respondent's opinion about from whom they should seek help when faced with a distressing or troublesome event. The choices were on a Guttman-type scale with a range of not seeking help from anyone to seeking help from the entire network, or an "undecided" choice.

An evaluation tool (Appendix C) was developed for the respondents to indicate (a) whether or not they understood the directions for each part of the questionnaire; (b) whether or not they understood other parts of the questionnaire; (c) how long it took them to complete the tool; (d) when would be the best time to send the questionnaire to rural people; and (e) any comments about the tool or the study.

Subjects and Data Collection

The pilot study was conducted in the community of Fairfield, Montana, which is located 45 miles northwest of Great Falls, Montana. This community was chosen because it is predominantly a farming community, it would not be eligible for the actual study, and the researcher was known in the community through her provision of health services there. A total of 39 subjects who utilized a well child clinic service in the community and resided outside of the town of Fairfield were chosen for the study.

The SNAT, the evaluation tool, a cover letter (Appendix D) and a
prestamped envelope were mailed to each of the 39 subjects. When the questionnaires and evaluations were received by the researcher, each was assigned a number and the data were analyzed using descriptive statistics.

Results

There were nine (23 percent) questionnaires returned, and the sample consisted of eight females and one male, all of whom were married. Three age groups were represented: 18-25 (22 percent), 26-35 (22 percent), and 36-45 (56 percent). All but one of the respondents resided on a farm or ranch and 66 percent had resided in the present area for six or more years. The one respondent who did not live on a farm or ranch did reside outside of the town.

In analyzing the evaluation tool, 25 percent of the sample did not understand the directions in Part One of the questionnaire; specifically, whom they were to list and the content exchanges. The comments about what was misunderstood indicated that there was confusion about how many people to list and how many content exchanges could be checked for each member. Based on these evaluations revisions were made in the directions of the final tool. The respondents indicated that 100 percent of them understood the remaining parts of the questionnaire.

In reviewing the help-seeking question in Part Two, the
researcher decided to make a major change in this section. The original question measured an opinion about help-seeking. Since an opinion could be quite different from actual behavior, it was decided that the behavior was the variable to be measured; therefore, the question was changed to elicit from whom the respondent actually sought help when faced with a distressing event. The choices on the pilot study tool allowed for an "undecided" response, but the researcher decided to eliminate this as an option and make the help-seeking scale a forced-choice response. In place of the "undecided" choice a space for comments was provided.

Most of the respondents (66 percent) required 50 to 60 minutes to complete the tool. This time was incorporated into the directions of the final tool.

According to 86 percent of the sample, the best time to conduct the study was in the month of October when harvesting and seeding were completed. The greatest percentage (71 percent) indicated mid- to late October as the most appropriate time, and that was the time chosen by the researcher.

Two additional responses were given by the sample about place of residence. Some of the respondents lived outside of town, but not on a farm or ranch, and some lived on the ranch, but also maintained a home in town. These two responses were added to the final tool.
Subjects

The target population for the study were members of rural farm and ranch families who were at least 18 years of age. The sample was selected from the telephone books of the County Seats of 19 Montana counties with a population density of less than 2.0 according to the 1980 census. The County Seat could not be located within 50 miles of a city with 50,000 or more inhabitants according to the 1980 census. Only those names listed in the telephone books with an address outside of the town (as designated by rural; ranch; or N, NE, NW, W, S, SE, SW, E of the town) were selected as potential subjects. A list of all these names for each county was compiled, and the table of random numbers was used to select a total of 300 subjects. A proportionate number of subjects were selected in each county based on the total county population (Appendix E provides specific information about the number of questionnaires sent in each county).

In order to obtain accurate addresses for the sample, a letter (Appendix F) explaining the study and the nature of the request and a list of subjects were sent to the Post Master in each respective County Seat. The addresses were purchased for half of the counties, but half of the Post Masters indicated they knew where the subjects lived and would guarantee delivery of mail with the name and address as it appeared in the telephone book. For those subjects who no longer resided in the area or were deceased, a new name was randomly
chosen from the original compilation of names. No questionnaires were returned to the researcher as undeliverable; therefore, it was assumed that all 300 had been delivered.

Data Collection and Recording

In order to increase the return rate of the questionnaires, prior to collecting data the researcher requested the assistance of the County Extension Agent (Appendix G) in each county to collect the questionnaires and return them to the researcher. It was hoped that the response rate would be better if the subjects returned the questionnaires to a locally known individual. All but one County Agent agreed to participate. The 18 Agents who agreed to participate were supplied with a set of directions and the materials necessary to mail collected questionnaires back to the researcher (Appendix H).

The final questionnaire (Appendix A), a cover letter (Appendix I), and a postage-paid return envelope were mailed to each of the 300 subjects. In addition, a 3x5 card was enclosed for the subjects to provide their name and address if they desired a summary of the study results. The questionnaire and 3x5 card were returned to the County Agent for the county in which the subject resided; the envelopes had been preaddressed to match the County Agent with the county where the subject resided. Those subjects who resided in the county where the Agent chose not to participate returned their questionnaires directly
Ten days after the questionnaires were mailed, a follow-up post card was sent to the entire sample requesting that they return their questionnaires if they had not already done so and thanking those who had complied. One month after the questionnaires had been mailed to the sample, the county agents returned their collected questionnaires to the researcher.

On receipt of the questionnaires, the total number returned from each county was tallied (Appendix E) and each questionnaire was coded with a five-digit number; the first three numbers indicated the questionnaire number, and the last two digits were the county code. The 3x5 cards were stored for later reference to mail the study results to those who indicated they wanted them.

Data were retrieved from the questionnaires by hand and entered on master tabulating sheets. Any questionnaire which had place of residence designated as "in town" was excluded from the data analysis. In order to determine if network members were listed in more than one category of relationship or listed twice within the same category, each category was carefully scrutinized for names and initials which appeared twice. If an inconsistency was found, the mileage column was checked for each name. If the mileage entries were the same for the same name or initials, that network member (entry) was not included in the data analysis.
Data Analysis

The data were analyzed through the application of descriptive statistics. Due to the complicated nature of certain network variable calculations, these are explained in detail in the respective sections of the next chapter. The data are presented in both written and tabular form in the following chapter.
Chapter 4
ANALYSIS AND FINDINGS

This chapter provides the findings of the study. In order to present the findings in as meaningful a manner as possible, the data have been organized into several main categories: the sample; network structural characteristics; network linkage characteristics; network differences by sex; network differences by age; help-seeking response; and network structural and linkage characteristics according to help-seeking response. Where the data analysis involved complicated calculations of means, the method of analysis is explained. Data are presented in both written and tabular form.

Pilot Study

A pilot study was conducted in order to evaluate clarity of the tool and to determine what time of year to conduct the study. Based on the evaluations of the tool, revisions were made in the directions and the help-seeking question of the final tool. The sample for the pilot study differed from the sample for the actual study. The pilot study subjects resided within 50 miles of a city with 50,000 or more inhabitants and 56 percent were in the 36-45 age group; however, all but one of the respondents resided on a farm or ranch.
The Sample

A total of 300 questionnaires were sent and 69 (23 percent) were returned; only 63 (21 percent) were usable. Two of the returned questionnaires had place of residence as "in town" and were disqualified from the analysis. The other three were blank and had comments such as "is this the beginning of the Gestapo," and "this is a waste of tax money;" one questionnaire was returned with an envelope full of John Birch Society pamphlets. Questionnaires were sent to 19 counties and there were returns from 17 (Appendix E provides information about specific return from counties).

Demographic data about the sample is provided in Table I. The sample consisted of 31 males and 31 females. There was a fairly even distribution for all age categories, with the exception of the 18-25 group (4); 26-35 (13), 36-45 (14), 46-55 (9), 56-65 (12), and 66+ (10). Most subjects (80 percent) were married.

Occupation was ascertained by an open-ended question on the tool and then grouped for data analysis. There were eight professionals (nurses, teachers, veterinarians, secretaries); two laborers (mechanic, railroad worker); one outfitter; thirty-one farmers/ranchers (including those who stated they were retired from ranching/farming); fifteen housewives (ten of whom lived on a farm/ranch); and five retired (not stated from what they were retired).

Most of the sample (73 percent) resided on a farm/ranch; a small
Table 1. Demographic Characteristics of Sample.

<table>
<thead>
<tr>
<th>Sex</th>
<th>Residence</th>
<th>Residence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>31 (50%) On Farm/Ranch</td>
<td>45 (73%) On Farm/Ranch</td>
</tr>
<tr>
<td>Female</td>
<td>31 (50%) Out of town, not on Farm</td>
<td>15 (24%) Out of town, not on Farm</td>
</tr>
<tr>
<td></td>
<td>On Farm, Occasionally Town</td>
<td>2 (3%) On Farm, Occasionally Town</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Length Time Resided in Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>Less than year</td>
</tr>
<tr>
<td>Single</td>
<td>1-5 years</td>
</tr>
<tr>
<td>Divorced</td>
<td>6-10 years</td>
</tr>
<tr>
<td>Widowed</td>
<td>11+ years</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Length Time Family in Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-25</td>
<td>1 generation</td>
</tr>
<tr>
<td>26-35</td>
<td>2 generations</td>
</tr>
<tr>
<td>36-45</td>
<td>3 generations</td>
</tr>
<tr>
<td>46-55</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>56-65</td>
<td></td>
</tr>
<tr>
<td>66+</td>
<td></td>
</tr>
</tbody>
</table>

N = 62
percentage (24 percent) resided outside of town, but not on a farm or ranch. The majority of the sample (70 percent) had lived in their present area for 6 or more years, and 30 percent had been in their present area for 1-5 years. Much of the sample (69 percent) had family who had resided in the present area for at least two to three generations; 10 percent had families who had resided in the area only one generation, and for 21 percent the question was not applicable.

Network Structural Characteristics

Range

Analysis. The range constituted all the network members listed in all four categories of relationships. Some respondents listed what may have been the same person(s) in two or more categories and the range could not be determined for those individuals. Other respondents wrote comments such as "too many friends to list," therefore, the range could not be calculated.

Findings. The mean number of persons in the networks was 43 with a range of 3 to 121.

Style

Analysis. Table 2 shows the numbers and percentages of network styles for the sample. The style of the network was determined by summing the number of individuals listed under each category of relationship (family, friend, neighbor, and associate). The category
which had the greatest number of individuals listed in it designated the style. No primary style could be determined if (a) two or more categories contained an equal number of individuals and this was the greatest number for all categories; (b) one or more individuals were listed in two or more categories or listed more than once in any category; or (c) the respondent wrote a comment such as "too many to list" for any category.

Table 2. Network Styles for Sample.

<table>
<thead>
<tr>
<th>Primary Style</th>
<th>N</th>
<th>Percent of Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>38</td>
<td>63</td>
</tr>
<tr>
<td>Friend</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>Neighbor</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Associate</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>No Primary</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>TOTAL</td>
<td>61</td>
<td>100</td>
</tr>
</tbody>
</table>

Findings. For 38 of the subjects (63 percent) the predominant network style was family. Ten subjects (16 percent) had primarily friend networks, and three subjects (5 percent) had primarily associate networks. The least predominant style was neighbor, and two subjects (3 percent) had primarily neighbor networks. The primary style could not be determined for six or 13 percent of the subjects.
Density

Analysis. Density was calculated by summing the number of other network members each individual member knew. This total was then divided by the network range to give the mean number of people in the network that each individual knew. This number was then divided by the network range to give a proportion with a value of zero to one; a one would indicate all network members knew each other.

Findings. Density could be calculated for 33 respondents. The range was .06 to 1.00 with a mean of .49. Although the density column was left blank on many of the questionnaires, there were several comments made by the respondents that living in a small town meant everyone knew everyone else. Seven of the respondents wrote "most all" or "lots" in the density column. Other comments included questions to the effect of "how does one truly know how many other people an individual knows?".

Network Linkage Characteristics

Frequency of Contact

Analysis. Table 3 depicts the mean frequency of contact by category of relationship. For each questionnaire, the following values were assigned to the frequency responses: frequently (3), occasionally (2), and rarely (1). For each category of relationship the total number of "frequently" checks were multiplied by three; the
total number of "occasionally" checks were multiplied by two; and the
total number of "rarely" checks were multiplied by one. These three
totals were summed for each respective category.

Table 3. Mean Frequency of Contact by Category of Relationship.

<table>
<thead>
<tr>
<th>Category of Relationship</th>
<th>Frequency of Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>2.26</td>
</tr>
<tr>
<td>Friend</td>
<td>2.37</td>
</tr>
<tr>
<td>Neighbor</td>
<td>2.42</td>
</tr>
<tr>
<td>Associate</td>
<td>2.28</td>
</tr>
</tbody>
</table>

N = 61

The mean frequency of contact for the sample was calculated in
the following manner. The frequency scores for each category of
relationship for all the questionnaires were summed. The total number
of network members in each category for the sample was summed. The
total frequency of contact score in each category was divided by the
total number of members in each category to give the mean. To convert
the mean back to the original descriptive frequency, the following
scoring was used: frequently equals 3.00 or more; occasionally equals
2.00 to 2.99, and rarely equals 1.00 to 1.99.

Findings. The mean frequency for all categories of relationships
was equivalent to occasional contact which was defined as
face-to-face, letter, or phone contact less than twice a month, but more than once a year. Neighbors had the highest mean frequency of contact (2.42) and family had the lowest (2.26). Associates differed very little from family, their mean being only slightly greater (2.28). Friends had the second highest mean frequency of contact (2.37).

Dispersion

Findings. Table 4 depicts the network dispersion by category of relationship. The friend, neighbor, and associate members were not very widely dispersed; 67 percent of the friends, 100 percent of the neighbors, and 78 percent of the associate members resided within 40 miles of the focal person. The family members were very widely dispersed in comparison to the other network members. Only 44 percent of the family members resided within 40 miles of the focal person, 19 percent between 41 and 200 miles, and 37 percent resided 201 or more miles away from the focal person. In terms of geographic proximity, the network members for the sample were very accessible.

Multiplexity

Analysis. Table 5 shows the mean number and proportion of multiplex linkages by category of relationship. Only functional linkages were used in the analysis. A linkage was considered functional if there was at least one content exchange (support,
Table 4. Network Dispersion by Category of Relationship.

<table>
<thead>
<tr>
<th>Miles</th>
<th>Family</th>
<th></th>
<th></th>
<th>Friend</th>
<th></th>
<th></th>
<th>Neighbor</th>
<th></th>
<th></th>
<th>Associate</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sample % of</td>
<td>Mean</td>
<td>Members</td>
<td>Sample % of</td>
<td>Mean</td>
<td>Members</td>
<td>Sample % of</td>
<td>Mean</td>
<td>Members</td>
<td>Sample % of</td>
<td>Mean</td>
</tr>
<tr>
<td>0-20</td>
<td>5.73</td>
<td>36</td>
<td>6.15</td>
<td>56</td>
<td>5.87</td>
<td>98</td>
<td>3.90</td>
<td>66</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-40</td>
<td>1.20</td>
<td>8</td>
<td>1.26</td>
<td>11</td>
<td>1.00</td>
<td>2</td>
<td>.69</td>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41-60</td>
<td>.52</td>
<td>3</td>
<td>.41</td>
<td>4</td>
<td>--</td>
<td>--</td>
<td>.33</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61-80</td>
<td>.40</td>
<td>3</td>
<td>.33</td>
<td>3</td>
<td>--</td>
<td>--</td>
<td>.31</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>81-100</td>
<td>.49</td>
<td>3</td>
<td>.31</td>
<td>3</td>
<td>--</td>
<td>--</td>
<td>.20</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>101-120</td>
<td>.21</td>
<td>1</td>
<td>.10</td>
<td>.8</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>121-140</td>
<td>.20</td>
<td>1</td>
<td>.08</td>
<td>.7</td>
<td>--</td>
<td>--</td>
<td>.02</td>
<td>.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>141-160</td>
<td>.40</td>
<td>3</td>
<td>.07</td>
<td>.5</td>
<td>--</td>
<td>--</td>
<td>.02</td>
<td>.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>161-180</td>
<td>.33</td>
<td>2</td>
<td>.18</td>
<td>2</td>
<td>--</td>
<td>--</td>
<td>.05</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>181-200</td>
<td>.49</td>
<td>3</td>
<td>.40</td>
<td>4</td>
<td>--</td>
<td>--</td>
<td>.07</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>201+</td>
<td>5.75</td>
<td>37</td>
<td>1.66</td>
<td>15</td>
<td>--</td>
<td>--</td>
<td>.30</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N = 61
advice, financial/material aid, or tasks) provided for or by the focal person. Any linkage which had no content specified was not considered as functional for the content exchanges investigated in the study.

Table 5. Mean Number and Proportion of Multiplex Linkages by Category of Relationship.

<table>
<thead>
<tr>
<th>Category of Relationship</th>
<th>Mean No. Multiplex Linkages</th>
<th>Proportion Multiplex Linkages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>7.72</td>
<td>.51</td>
</tr>
<tr>
<td>Friend</td>
<td>5.25</td>
<td>.51</td>
</tr>
<tr>
<td>Neighbor</td>
<td>2.62</td>
<td>.52</td>
</tr>
<tr>
<td>Associate</td>
<td>3.11</td>
<td>.61</td>
</tr>
</tbody>
</table>

N = 61

A functional linkage was considered multiplex if the linkage contained at least two content exchanges. The mean number of multiplex linkages for each category of relationship was calculated for the sample. In order to calculate the proportion of multiplex linkages in each category, the total number of multiplex linkages in the category was divided by the total number of functional linkages in the category. The proportion was a number with a value of zero to one, where zero indicated no multiplex linkages and one indicated all the linkages were multiplex.
Findings. Family and friends had the greater mean number of multiplex linkages, 7.72 and 5.25 respectively. The associates and neighbors had the lesser mean number of multiplex linkages, 3.11 and 2.26 respectively. As Table 5 shows, the pattern for the proportion of multiplex linkages differed from that for the mean number of multiplex linkages. The associates had the highest proportion (.61). The next highest proportion was in the neighbor category (.52), but this category differed very little from friends (.51) and family (.51). Although family and friends had the greatest mean number of multiplex linkages, when the proportion of multiplex linkages for all four categories was compared, family and friends had the lowest proportion of multiplex linkages and associates had the highest proportion. Family and friends were more likely to provide only one function, and associates were more likely to provide at least two functions.

Symmetry

Analysis. Table 6 depicts the mean number and proportion of asymmetrical linkages by category of relationship. A functional linkage was considered asymmetrical if the total number of content exchanges provided for and provided by the focal person were unequal. The mean number of asymmetrical linkages for each category was calculated for the sample. The proportion of asymmetrical linkages in
each category was calculated by dividing the total number of asymmetrical linkages in the category by the total number of functional linkages for the category. The proportion was a number with a value of zero to one, where zero indicated no asymmetrical linkages and one indicated all asymmetrical linkages.

Table 6. Mean Number and Proportion of Asymmetrical Linkages by Category of Relationship.

<table>
<thead>
<tr>
<th>Category of Relationship</th>
<th>Mean No. of Asymmetrical Linkages</th>
<th>Proportion Asymmetrical Linkages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>4.30</td>
<td>.28</td>
</tr>
<tr>
<td>Friend</td>
<td>2.11</td>
<td>.21</td>
</tr>
<tr>
<td>Neighbor</td>
<td>1.05</td>
<td>.21</td>
</tr>
<tr>
<td>Associate</td>
<td>1.33</td>
<td>.26</td>
</tr>
</tbody>
</table>

N = 61

Findings. The mean numbers of asymmetrical linkages for each category of relationship were: family (4.30), friend (2.11), neighbor (1.05), and associate (1.33). For the sample, family and friends had the greater mean number of asymmetrical linkages, and neighbors and associates had the lesser means. However, when the proportion of asymmetrical linkages for each category was examined (see Table 6), a different pattern emerged. The proportion of asymmetrical linkages for each category, in descending order, was as follows: family (.28),
associate (.26), and friend (.21) and neighbor (.21). Family and associate linkages tended to be more asymmetrical, and friend and neighbor linkages tended to be more symmetrical. This indicated that content exchange was more likely to be unequal in family and associate linkages and equal in friend and neighbor linkages.

Content and Reciprocity

Analysis. Table 7 shows the mean content exchange and mean reciprocity for each category of relationship. For each questionnaire the number of checks under "support" in the "provided for" column in the family category were summed. The number of checks under "support" in the "provided by" column in the family category were summed. For each relationship, if support was both provided for and provided by, the linkage was designated as reciprocal (R) for support; the number of reciprocal linkages for the family category was summed. To calculate the mean number of support provided for and provided by and the mean reciprocity of support for the family category for the sample, the following procedure was carried out. The number of support "provided for" was summed for the sample, the number of support "provided by" was summed for the sample, the number of reciprocal support linkages was summed for the sample. Each summation was divided by the total number of functional linkages in the family category for the sample. This same procedure was repeated for the
Table 7. Mean Content Exchange and Mean Reciprocity for Each Category of Relationship.

<table>
<thead>
<tr>
<th>Category of Relationship</th>
<th>Support</th>
<th></th>
<th>Advice</th>
<th></th>
<th>F/M Aid</th>
<th></th>
<th>Tasks</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prov&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Prov&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Prov&lt;sup&gt;c&lt;/sup&gt;</td>
<td>Prov&lt;sup&gt;d&lt;/sup&gt;</td>
<td>Prov&lt;sup&gt;e&lt;/sup&gt;</td>
<td>Prov&lt;sup&gt;f&lt;/sup&gt;</td>
<td>Prov&lt;sup&gt;g&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Family</td>
<td>.90</td>
<td>.92</td>
<td>.87</td>
<td>.31</td>
<td>.36</td>
<td>.26</td>
<td>.15</td>
<td>.21</td>
</tr>
<tr>
<td>Friend</td>
<td>.78</td>
<td>.79</td>
<td>.75</td>
<td>.42</td>
<td>.36</td>
<td>.33</td>
<td>.18</td>
<td>.18</td>
</tr>
<tr>
<td>Neighbor</td>
<td>.72</td>
<td>.71</td>
<td>.52</td>
<td>.21</td>
<td>.19</td>
<td>.16</td>
<td>.15</td>
<td>.15</td>
</tr>
<tr>
<td>Associate</td>
<td>.54</td>
<td>.56</td>
<td>.49</td>
<td>.61</td>
<td>.42</td>
<td>.40</td>
<td>.24</td>
<td>.23</td>
</tr>
</tbody>
</table>

N = 61

<sup>a</sup>Provided for Focal Person

<sup>b</sup>Provided by Focal Person

<sup>c</sup>Reciprocal

<sup>d</sup>Financial/Material Aid
Findings. Due to the complexity of the findings for these two network variables (content exchange and reciprocity), the findings are discussed in the following manner. Each specific content exchange (support, advice, financial/material aid, tasks) and its relation to the categories of relationships is discussed separately. A general summary is provided at the end of this section.

The mean numbers of support provided for the focal person by each of the various categories of relationships were as follows: family (.90), friend (.78), neighbor (.72), and associate (.54). In descending order, support was provided for the sample by family, friends, neighbors, and associates. The mean number of support provided by the focal person in each of the categories of relationships were family (.92), friend (.79), neighbor (.71), and associate (.56). Support was provided by the focal person in the same descending order as support was provided for the focal person.

The means for reciprocity of support for family, friends, neighbors, and associates were .87, .75, .52, and .49 respectively. As Table 7 shows, when the mean reciprocity of support is compared with the greater of the means for support provided by or provided for in each category of relationship, the differences between the means are .05 or less for family and friends; however, the differences between the means for neighbors is .20 and .07 for associates. This
finding indicates that support was fairly reciprocal for family and friends, but not reciprocal for neighbors and associates.

The mean numbers of advice provided for the focal person by each of the different categories of relationships were .31 for family, .42 for friends, .21 for neighbors, and .61 for associates. Advice was provided for the sample mostly by associates and then by friends. Neighbors provided the least amount of advice for the sample. The mean numbers of advice provided by the focal person for each category of relationship were as follows: family (.36), friend (.36), neighbor (.19), and associate (.42). When compared with the order of advice provided for the focal person, a slightly different pattern existed for the order in which advice was provided by the focal person. Associates had the greater mean number of advice provided for them by the focal person, but family and friends had the second highest mean. Neighbors had the lowest mean, indicating that the sample provided the least amount of advice for them.

The means for reciprocity of advice for the categories of relationships were family (.26), friend (.33), neighbor (.16), and associate (.40). As Table 7 shows, when the mean reciprocity of advice is compared with the greater of the means for advice provided by or provided for in each category of relationship, the differences in the means are .10 for family, .09 for friends, .05 for neighbors, and .21 for associates. Advice was not reciprocal for family,
friends, and associates, but it was reciprocal for neighbors.

The mean numbers of financial/material aid provided for the focal person by each category of relationship were as follows: family (.15), friend (.18), neighbor (.15), and associate (.24). In descending order, financial/material aid was provided for the sample by associates, friends, and neighbors and family. The mean numbers of financial/material aid provided by the focal person were .21 for family, .18 for friends, .15 for neighbors, and .23 for associates. Associates had the most financial/material aid provided for them by the sample, friends were next in order, and neighbors and family had the least amount of financial/material aid provided for them by the sample.

The means for reciprocity of financial/material aid for family, friends, neighbors, and associates were .10, .17, .12, and .12 respectively. When the means were compared with the greater of the means for financial/material aid provided by and provided for in each category, the differences were .11 for family, .01 for friends, .03 for neighbors, and .12 for associates. Financial/material aid was reciprocal for friends and neighbors, but not reciprocal for family and associates.

The mean numbers of tasks provided for the focal person by each category were .31 for family, .28 for friends, .43 for neighbors, and .33 for associates. In descending order, tasks were provided for the
sample by neighbors, associates, family, and friends. The means for tasks provided by the focal person were family (0.35), friend (0.33), neighbor (0.40), and associate (0.37). Tasks were provided by the sample in the same descending order as tasks were provided for the sample.

The means for reciprocity of tasks for the categories of relationships were as follows: family (0.30), friend (0.26), neighbor (0.35), and associate (0.25). When these means were compared with the greater of the means for tasks provided by or provided for in each category, the differences were .05 for family, .07 for friends, .08 for neighbors, and .12 for associates. Tasks were not reciprocal for associates, were slightly reciprocal for neighbors and friends, and reciprocal for family.

In summary, support was provided for the sample mostly by family and friends, least by neighbors and associates. Advice was provided for the sample mostly by their associates, somewhat less by friends, and least by their family and neighbors. Financial/material aid was provided for the focal person primarily by associates, to a lesser extent by friends, and least by family and neighbors. Neighbors provided the most tasks for the sample and family provided the least tasks.

The sample provided more support for their family and friends than they did for their neighbors and associates. They provided the
most advice to their associates, family and friends next, and neighbors received the least amount of advice. Associates and family received the most financial/material aid, and neighbors and friends received the least financial/material aid. Tasks were provided by the sample primarily for their neighbors and associates; the sample provided fewer tasks for their family and friends.

In terms of reciprocity, support was reciprocal for family and friends. Advice was only reciprocal for neighbors. Financial/material aid was reciprocal for friends and neighbors. Family was the only category of relationship for which tasks were reciprocal.

Network Differences by Sex

Table 8 compares some of the network structural and linkage characteristics for males and females. Men and women both had primarily family style networks. The mean range was much higher for women (51) as compared to the men (31). Men had much denser networks than women, .53 and .45 respectively; a density of one indicated that all members in the network knew each other.

There was very little difference between the mean frequency of contact for men (2.31) and women (2.37), with both means being equivalent to occasional contact; occasional was defined as less than twice a month, but more than once a year. There was a considerable
Table 8. Network Structural and Linkage Characteristics by Sex.

<table>
<thead>
<tr>
<th>Sex</th>
<th>N</th>
<th>Primary Style</th>
<th>Mean Range</th>
<th>Mean Density</th>
<th>Mean Frequency of Contact</th>
<th>Mean Number of Multiplex Linkages</th>
<th>Mean Number of Asymmetric Linkages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>28</td>
<td>Family</td>
<td>31</td>
<td>.53&lt;sup&gt;a&lt;/sup&gt;</td>
<td>2.31</td>
<td>13.00</td>
<td>8.19</td>
</tr>
<tr>
<td>Female</td>
<td>30</td>
<td>Family</td>
<td>51</td>
<td>.45&lt;sup&gt;b&lt;/sup&gt;</td>
<td>2.37</td>
<td>25.80</td>
<td>10.70</td>
</tr>
</tbody>
</table>

<sup>a</sup> N = 13  
<sup>b</sup> N = 19

difference between the two groups for the mean number of multiplex linkages. The males' networks were characterized by a much lower mean number of multiplex linkages (13.00) as compared to the females' networks (25.80); men's linkages were more likely to provide only one content exchange and women's linkages were more likely to contain at least two content exchanges.

The men had networks that were more symmetrical than the women's networks. The mean number of asymmetrical linkages was 8.19 for the men and 10.70 for the women. This finding indicated that the men tended to have an equal number of content provided for and provided by them, and the women tended to have an unequal number of content provided for and provided by them.
Network Differences by Age

A detailed analysis of network differences by age was not done; however, this data has been provided in Appendix J, Tables 12 and 13. A few of the major findings for the age differences follows.

Family style networks made up the largest percentage for all age groups except the 36–45 group, which had a friend style network. The 18–25 group had the greatest mean range (54) and the 66+ group had the lowest mean range (35). The mean density was greatest for the 18–25 group (.53) and lowest for the 66+ group (.45). The 18–25 group had the greatest mean number of multiplex linkages (30.75), and the lowest mean number of asymmetrical linkages (6.00).

Help-Seeking Response

Analysis. The help-seeking question on the tool was stated as follows: Over the course of our lives we may experience troublesome or distressing events. For most troublesome events that you are faced with, which one of the following statements best describes from whom you seek support, advice, or assistance. The "A" response was not seeking help from anyone; the "B" response was seeking help only from the spouse; the "C" response was seeking help only from the spouse and family; and the "D" response was seeking help from the spouse, family, friends, neighbors, and/or associates. A space for comments was provided.
Table 9. Help-Seeking Response.

<table>
<thead>
<tr>
<th>Response</th>
<th>No. Males</th>
<th>No. Females</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>5</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>C</td>
<td>11</td>
<td>9</td>
<td>34</td>
</tr>
<tr>
<td>D</td>
<td>12</td>
<td>14</td>
<td>44</td>
</tr>
<tr>
<td>Totals</td>
<td>30</td>
<td>29</td>
<td>100</td>
</tr>
</tbody>
</table>

Findings. As Table 9 shows, 56 percent of the sample gave an "A," "B," or "C" response, which indicated that they did not seek help for a distressing event beyond the family. A greater number of men (five) than women (two) indicated that they did not seek help from anyone (A). However, a greater number of women (four) than men (two) sought help only from their spouse (B). In examining the number of males and females who checked response "D," more females (four) than males (twelve) indicated that they sought help from their entire network.

Under "comments" several respondents reported that from whom they sought help was dependent upon the nature of the troublesome event. Other sources of assistance that were listed under comments included ministers, God, nurses, bankers, lawyers, and doctors.
Network Characteristics and Help-Seeking

Network Structure

Findings. As Table 10 shows, the "A" respondents had a wide distribution of network styles: family (two), friend (two), neighbor (one), and associate (one). The "B" and "C" respondents had the greater number of family styles, four and fifteen respectively. This finding was consistent with the degree of help these groups sought; they indicated that they sought help only from their spouse (B) or only from their spouse and family (C).

Table 10. Network Structural Characteristics by Help-Seeking Response.

<table>
<thead>
<tr>
<th>Response</th>
<th>N</th>
<th>Fam</th>
<th>Frnd</th>
<th>Neigh</th>
<th>Assoc</th>
<th>Mean</th>
<th>Mean^b</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>20</td>
<td>.56 (3)</td>
</tr>
<tr>
<td>B</td>
<td>6</td>
<td>4</td>
<td>1</td>
<td>---</td>
<td>---</td>
<td>27</td>
<td>.58 (5)</td>
</tr>
<tr>
<td>C</td>
<td>20</td>
<td>15</td>
<td>1</td>
<td>---</td>
<td>---</td>
<td>37</td>
<td>.42 (7)</td>
</tr>
<tr>
<td>D</td>
<td>26</td>
<td>14</td>
<td>6</td>
<td>---</td>
<td>2</td>
<td>55</td>
<td>.49 (16)</td>
</tr>
</tbody>
</table>

Note - Abbreviations for styles: Fam = Family, Frnd = Friend, Neigh = Neighbor, and Assoc = Associate.

a The totals may not equal N because the primary style could not be determined for some networks.

b Numbers in parentheses indicate number for which density could be calculated.
The "A" respondents had the smallest mean range (20), the "B" respondents had the greatest (55); the "B" and "C: respondents fell between the other two groups with means of 27 and 37 respectively. The highest means for density were in the "A" (.56) and "B" (.58) groups, and the lowest means for density were in the "C" (.42) and "D" (.49) groups.

A pattern existed for the help-seeking groups based on the structural characteristics of their networks. For the style and range variables, the following groupings occurred: "A," which was characterized by a very widely distributed network style and a small mean range; "B-C," characterized by a family style and a mean range between the other two groups; and "D," characterized by a fairly wide style distribution (though not as wide as the "A" group) and the largest mean range.

For the density variable, two distinct grouping occurred. The "A-B" group had high mean densities (between .55 and .60); the "C-D" group had low densities (between .40 and .50).

Network Linkage Characteristics

Findings. Table 11 depicts the network linkage characteristics according to the help-seeking response. In descending order, the mean numbers of functional linkages were "D" group (44.95), "B" group (28.17), "C" group (26.35), and the "A" group (13.14). The highest
mean number of multiplex linkages was in the "D" group (22.54) and the lowest mean was in the "C" group (6.40). The "B" and "A" groups had mean numbers of multiplex linkages of 11.33 and 6.71 respectively. The following were the mean numbers of asymmetrical linkages for each group: "A" (6.29), "B" (7.00), "C" (6.85), and "D" (10.96).

Table 11. Network Linkage Characteristics by Help-Seeking Response.

<table>
<thead>
<tr>
<th>Response</th>
<th>N</th>
<th>Mean No. Functional</th>
<th>Mean No. Multiplex</th>
<th>Mean No. Asymmetric</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>7</td>
<td>13.14</td>
<td>6.71</td>
<td>6.29</td>
</tr>
<tr>
<td>B</td>
<td>6</td>
<td>28.17</td>
<td>11.33</td>
<td>7.00</td>
</tr>
<tr>
<td>C</td>
<td>20</td>
<td>26.35</td>
<td>6.40</td>
<td>6.85</td>
</tr>
<tr>
<td>D</td>
<td>26</td>
<td>44.95</td>
<td>22.54</td>
<td>10.96</td>
</tr>
</tbody>
</table>

As with the structural characteristics, a pattern existed for the help-seeking groups based on their network structural characteristics. The pattern was "A-B-C" and "D." The "A-B-C" group had fewer functional and multiplex linkages, and the linkages were symmetrical. The "D" group contained two to three times more multiplex linkages, a higher number of functional linkages, and linkages that were asymmetrical.

Summary

The sample for the study consisted primarily of rural individuals
who resided on farms or ranches; half of the sample reported farmer/rancher as their occupation. There was an equal number of men and women who were fairly evenly distributed over the life-span.

The network structures were primarily family in style, with a mean range of 43 and a mean density of .49. Density could only be calculated for slightly more than half of the sample. Typical comments related to density included "how does one truly know how many other people someone else knows," and "living in a small town everyone knows everyone else."

The linkage characteristics of the networks were analyzed according to categories of relationships. The mean frequency of contact was highest for neighbors and lowest for family; however, the frequency for all categories was equivalent to occasional contact which was defined as less than twice a month, but more than once a year.

The networks were accessible to the sample in terms of geographic proximity. Most of the friend, neighbor, and associate members resided within 40 miles of the focal person. The family members were dispersed into three mileage groupings, 0-40, 41-200, and 201+ miles. The wide dispersion of family members was a surprising finding since most of the sample had indicated that their families had resided in the present area for two or more generations.
Family and friends had the lowest proportion of multiplex linkages, while associates had the greatest proportion. This indicated that associate linkages were more likely to contain two or more content exchanges, and family and friend linkages were more likely to contain only one content exchange.

Family and associate linkages were characterized by a greater proportion of asymmetrical relationships as compared to friend and neighbor linkages. This finding indicated that family and associate linkages were more likely to contain an unequal number of content provided for and provided by the focal person, whereas friend and neighbor linkages were more likely to contain an equal number of content provided for and by the focal person.

Support was provided for the sample primarily by family and friends, financial/material aid and advice by associates, and neighbors provided the most tasks. The sample provided the most support for their families and friends, advice and financial/material aid for their associates, and tasks primarily for their neighbors.

Support was reciprocal for family and friend linkages. Advice was only reciprocal for neighbors. Financial/material aid was reciprocal for friends and neighbors. Family was the only category of relationship for which tasks were reciprocal.

Network structural and linkage characteristics varied for men and women, with the exception of network style and frequency; both sexes
had family style networks and the mean frequency was equivalent to occasional contact. Women had a greater range and a higher density than did the men. The men's networks contained more uniplex linkages than did the women's networks. The men's linkages were more likely to provide only one content exchange, whereas the women's linkages were more likely to contain two or more content exchanges. The women had a greater number of asymmetrical linkages as compared with the men. Men tended to have an equal number of content provided for and provided by them; women tended to have an unequal number of content provided for and by them.

Although a detailed analysis of network characteristics by age was not done, some major findings were noted. The 18-25 group had the greatest range and the 66+ group had the smallest range. The 18-25 group had the most dense networks, whereas the 66+ group had the least dense networks. The 18-25 groups had networks characterized by a greater number of multiplex and symmetrical linkages as compared to the other age groups.

The majority of the sample reported that they did not seek help beyond their families when they were faced with a distressing or troublesome event. Men were more likely than women not to seek help from anyone, but women were more likely than men to seek help only from their spouse. More women than men sought help from their entire network. Some of the respondents commented that the nature of the
distressing or troublesome event determined from whom they would seek help. Other sources of help that were listed included clergy, God, bankers, nurses, lawyers, and doctors.

Three patterns emerged for network structural and linkage characteristics based on the help-seeking response. For the style and range variables the following groupings occurred: "A," which was characterized by a very widely distributed style and a small range; "B-C," characterized by a family style and a range between the other two groups; and "D," characterized by a fairly widely distributed style and a large range. For the density variable there were two groupings. The "A-B" group had high densities and the "C-D" group had low densities.

The pattern for the linkage characteristics was "A-B-C" and "D." The "A-B-C" group had few functional and multiplex linkages, and the linkages were symmetrical. The "D" group had asymmetrical linkages, two to three times as many multiplex linkages, and a high number of functional linkages.

The following chapter discusses these findings in relation to the review of the literature, their implications for nursing, and provides recommendations for further study.
Chapter 5
CONCLUSIONS, LIMITATIONS, AND RECOMMENDATIONS

Introduction

While working for several years with a rural population, the researcher noted an apparent discrepancy between the value rural individuals seemed to place on relying upon themselves for resolving problems and what appeared to be an abundance of help both given and received by these same individuals. Health professionals, providers of human services, and the literature held common beliefs about the characteristics of rural networks and rural help-seeking behavior; however, there were no empirical data to substantiate these myths. An exploratory study was conducted for the purpose of providing data about the nature of rural social networks and the relationship between rural social networks and help-seeking behavior. The study accomplished a multidimensional analysis of 61 rural social networks and their relationship to seeking help for a distressing event. Previous chapters have described the specific methodology and major findings of the study. This chapter will discuss the conclusions for each of the three questions investigated by the study, the implications for nursing, limitations, and recommendations for future research.
Conclusions

There was a 23 percent return of questionnaires from 17 of the 19 counties included in the study. Due to both the quality and quantity of analysis that was accomplished from the data the conclusions for the study are generalized, with some reservations, to rural residents in the state of Montana.

**Question 1.** What are the structural and linkage characteristics of rural social networks?

The structural characteristics analyzed in the study were style, range, and density. The linkage characteristics included in the study were dispersion, frequency of contact, content, reciprocity, multiplexity, and symmetry; these variables were analyzed by categories of relationships.

The networks for the sample were primarily family in style and had a mean range of 43 persons. The myth was supported that rural networks are composed of a large number of individuals, the greatest proportion of whom are family members. The reason that rural networks are composed of primarily family members is the lack of mobility in this population. Findings from the study substantiate this; 69 percent of the sample reported that their families had resided in the present area for two or more generations.

The mean density for the sample was .49, a density value of 1 would have indicated that all of the network members knew each other.
The finding of low density networks was unexpected since the common belief is that rural networks are characterized by high density. There were two major problems in measuring the density variable; one was a reliability problem, the other a question of validity. It was difficult to determine whether respondents had indicated the number of people each network member knew in the entire network or if they had indicated only the number that each member knew in the specific category of relationship in which the member was listed. There did not appear to be consistency in answering this portion of the questionnaire. A major question related to validity was what does it mean to "know" another person. "Know" was not defined and several questionnaires had comments directly related to the previous question.

Density of the networks was probably much higher than was found because many respondents made comments such as "living in a small area, everyone knows everyone else." Other questionnaires had word equivalents rather than numerals for the density response. For example, rather than giving a number in the density column, several respondents wrote "many," "several," or "almost all." The respondent who had the lowest density had a network which contained 53 individuals, 31 of whom were family members; therefore, it was highly probable that most of the family members would have known one another and the density should have been much greater. The researcher now believes that density cannot be measured accurately without checking
with each person listed in the network and having them validate how many other people they know. In addition, the term "know" would need to be clearly defined.

Network members were dispersed so that most of the associate, friends, and neighbors resided within 40 miles of the focal person. Family members were dispersed into three mileage categories. In terms of geographic proximity, the networks were very accessible.

The mean frequency of contact for all categories of relationships was equivalent to occasional contact which was defined as phone, letter, or face-to-face contact less than twice a month, but more than once a year. A factor that may have accounted for such small variances between the categories was the broad range of contact included in the definitions for this variable. For example, frequently was defined as "at least twice a month," which could range from daily contact to contact twice a month.

When frequency of contact was compared with dispersion, it appeared that these two variables may be related. Neighbors had the highest frequency of contact and they were dispersed so that 98 percent of them were within 20 miles of the focal person. Family had the lowest frequency of contact and they were the most widely dispersed category of members. The findings suggest that frequency of contact is determined by the geographic accessibility of network members.
Both the type of content exchange and who provided specific content were two variables that also seemed to be related to dispersion. The greatest numbers of tasks and financial/material aid were contained within the 0-20 mileage grouping (Appendix J, Table 14). Advice was provided over a slightly wider range of miles, and support was distributed even more widely than advice. The findings suggest that support and advice are provided regardless of distance, but financial/material aid and tasks are more likely to be provided within a close mileage range.

Tasks, by the nature of their definition, would require the provider to be physically present for exchange to occur, as compared to financial/material aid which would involve exchange of inanimate objects and would not necessitate the provider be physically present. Neighbors were dispersed so that 98 percent of them were within 20 miles of the focal person and they were the primary providers of tasks. Croog, Lipson, and Levine (1972) found that neighbors provided the most services for men who experienced a myocardial infarct.

Financial/material aid was provided by associates, who were slightly more dispersed than neighbors. The greater the distance away one is from their network, the more difficult it would be to exchange material goods. Since associates were dispersed so that 78 percent were within 40 miles of the focal person, it was not surprising that they were the primary providers of this content exchange.
Advice was provided primarily by associates. Several factors may have accounted for this finding. Professionals such as nurses, lawyers, ministers, and physicians were listed as members of the associate category. These individuals would ordinarily be sought out by the focal person for specific advice related to their area of expertise. In addition, they would probably be members of the local community; thus they would be geographically accessible. The associate category included members of the network who were co-workers or individuals with whom the focal person came in contact for a common reason. The focal person would be most apt to discuss matters related to their occupation or special interests with network members who shared those common concerns; i.e. their associates. A final factor deals with social norms and values. It is likely that if an individual receives advice from family or friends there may be pressure to heed that advice, particularly if friends and/or family members know and interact with one another independent of the focal person. McKinlay (1973) and Bott (1971) arrived at the same conclusion based on findings from their studies. The focal person would be freer to accept or reject the advice from an associate who may not interact with or know many other network members.

Support was the most frequently occurring content provided in all categories of relationships, except associates. Family and friends provided the greatest amount of support. Support was the most widely
dispersed content exchange, as were family and friends the most widely dispersed network members. The definition of support included the provision of affective content such as personal warmth and love. This type of content could be rendered without the provider being physically present, which could account for it not being related to distance. Furthermore, support would be expected to be primarily provided by those network members with whom the focal person would have the most affective and trusting ties, i.e. their families and friends. Lieberman and Mullan (1978) and Croog, Lipson, and Levine (1972) also found that family and friends were primary providers of support.

Although certain categories of relationships were found to provide a greater number of specific content exchange, there was a high proportion of multiplex linkages in all categories of relationships, indicating that many network members provided two or more functions. The finding did lend support to a speculation by Craven and Wellman (1973) that urbanites have access to separate networks for different content exchange as compared with rural individuals. Urbanites have the ability to obtain help in relative privacy. Rural residents, on the other hand, are dependent upon the same network for a variety of functions, resulting in less anonymity and more pressure to conform to the network's norms.

The proportion of asymmetrical linkages for all categories of
relationships was less than .29, indicating that the networks were fairly symmetrical. The finding suggests that rural individuals tend to equalize the total amount of all content exchanges received with an equal amount of content given by themselves, which raises a question about whether it is expected that when help is given it will be returned.

The reciprocity of content varied depending on the specific content exchange and the category of relationships support was reciprocal for family and friends, advice was reciprocal for neighbors, and tasks were reciprocal for family members. Financial/material aid was reciprocal for both friends and neighbors. The finding raises the question about whether or not there are certain norms for the provision of those content exchanges within the respective categories of relationships. For example, if support is given to the focal person by a family or friend member, is it expected that the focal person will reciprocate support for that family or friend member?

The network structural and linkage characteristics were found to vary according to age groups, which was consistent with a finding by Shulman (1975). Networks are formed and utilized to meet current needs; as needs change, so will the network structural and linkage characteristics.

In summary, rural social networks are characterized by a large
number of individuals who are primarily family or extended kin. Density of the networks is probably greater than the findings of this study indicated. The network members are geographically accessible to the focal person and frequency of contact is equivalent to occasional contact for all categories of relationships. Different categories of relationships provide a greater number of specific content exchanges; family and friends provide support, associates provide advice and financial/material aid, and neighbors provide tasks. Although some categories of relationships provide a greater number of specific content, rural networks are fairly multiplex, with a large proportion of network members providing two or more functions. The networks are fairly symmetrical, indicating that the total amount of content provided for the focal person is equivalent to the total amount of content provided by the focal person. Reciprocity of content varies with categories of relationships.

Question 2. When faced with a distressing event, do rural individuals seek help from their networks or rely upon themselves?

Although the sample did not exhibit self-reliant behavior for a distressing event, their degree of help-seeking was limited; 56 percent reported they did not seek help beyond their family.

An unexpected finding was apparent when the help-seeking response was compared to the number of content exchanges provided by each category of relationship. The respondents who indicated that they (a)
did not seek help, (b) sought help only from their spouse, or (c) sought help only from their spouse and family, had greater than expected numbers of content provided by various categories of relationships. The expected findings for these respondents were as follows: low numbers of content provided "for" in all categories of relationships for those who did not seek help, and low numbers of content provided "for" in all but the family category for the other two groups of respondents. The respondents who indicated they received help from their entire network had high numbers of content provided for them in all categories of relationships, as expected.

The data pertaining to the kinds of content provided for the sample were obtained by having the respondents indicate what types of content their network members provided for them; it was not associated with seeking help. The data related to help-seeking were obtained by asking the respondent to indicate from whom they sought help when faced with a distressing event. The findings suggest that having content provided on a day-to-day basis is not considered as "help." However, once a situation is perceived as troublesome there seems to be a norm that either one is self-reliant or if one seeks help, one should seek it only from one's spouse and/or one's family.

Question 3. Are there differences in the network structural and linkage characteristics of those individuals who seek help for a distressing event versus those who rely upon themselves?
There were three patterns for network characteristics based on the help-seeking response. For the style and range characteristics, the pattern was as follows:

A very widely distributed styles; small range.

B-C family style; range between "A" and "D."

D fairly widely distributed styles; large range.

The "A" respondents, who were self-reliant, had fewer resources to provide help, and those resources were distributed over a wide variety of primary relationships. The "B-C" group, who sought help only from their spouse or spouse and family, had primarily family networks, and family were the major sources of help. This finding was consistent with findings from other studies. Salloway and Dillon (1973) found that family style networks were associated with a delay in seeking care for an illness. Bott (1971) concluded that when relatives can help each other economically or hold common property rights, the ties between them will be stronger. She also concluded that when the network of kin is dense there will be social control exerted on members to maintain the group norms and values. In a rural area where the predominant occupation is farming or ranching, and usually these are family cooperatives, the ties among family members are most likely to be strong. Since this population is less mobile and kin have the opportunity to interact frequently, there will be constant pressure to adhere to the non-help-seeking norm. The "D" respondents, who sought
help from the entire network, had a large pool of resources to draw upon, and those resources came from a fairly wide variety of primary styles.

The pattern for the density variable defined two groups of help-seekers: "A-B," who had high densities, and "C-D," who had low densities. The "A-B" group was very restricted in the degree of help-seeking; they did not seek help beyond their spouse. The "C-D" group used a wider base of resources: their spouse and family or the entire network. The finding suggests that individuals who do not seek help beyond their spouse ("A-B") have networks in which many members know one another; in this group there would be more pressure to heed the non-help-seeking norm. The "C-D" respondents have networks in which a smaller proportion of members know one another. Therefore, the respondents are freer to seek help from a variety of resources.

The third pattern also defines two groups of help-seekers according to the structural characteristics of the networks:

- **A-B-C**  
  - few functional linkages; few multiplex linkages;  
  - more symmetrical linkages.

- **D**  
  - many functional linkages; two to three times more multiplex linkages; more asymmetrical linkages.

The "A-B-C" group did not seek help beyond their family, and their network characteristics were very different from the "D" group, who sought help from the entire network. The "A-B-C" group had less
functional relationships available to them, and their network members were more likely to provide only one function. Their relationships were symmetrical, indicating that an equal number of functions were provided for and provided by the focal person in each relationship. The finding raises a question about whether or not a norm exists within the "A-B-C" group that when one receives help one is expected to return it. The greater number of uniplex linkages and the use of a limited resource of network members would support the speculation that the norm exists.

The "D" group had a greater number of functional relationships and a wider base of resources, as characterized by the high number of multiplex linkages. Hirsch (1979) found that multiplexity of the network was associated with greater network satisfaction. It can be hypothesized that the "D" group would be more satisfied with their network than the group who was more restricted in their degree of help-seeking. The "D" respondents had more asymmetrical linkages, suggesting that they were freer to accept help without being expected to return it, which could enhance network satisfaction.

Network structural and linkage characteristics differed for males and females. When the characteristics of the male networks were compared with the characteristics according to the help-seeking response, the male networks had the same characteristics as those respondents who did not seek help beyond their family. This finding
was consistent with the finding that men were more likely than women not to seek help from anyone or to seek it only from their spouse and family. Women were more likely to utilize their entire network, and their network characteristics were the same as those respondents who indicated they sought help from the entire network. Men are less likely to seek help due to sex-role stereotyping which assumes men are strong and independent. Sex-role stereotyping is more prominent in rural areas where the "pioneer spirit" and the "macho cowboy" myths are promoted.

In summary, there are differences in the network structural and linkage characteristics dependent upon the degree of help-seeking behavior. No attempt is made here to conclude that network characteristics are predictors of the degree of help-seeking behavior, or vice versa, but the findings suggest that the network characteristics may be indicators of the degree of help-seeking that an individual is likely to exhibit.

Implications for Nursing

There are several implications of the findings for rural nursing practice. Providing holistic nursing care requires inclusion of the social network in the care of the client. Rural individuals have a large geographically accessible network and specific categories of relationships have been found to provide certain types of help; family
and friends provide support, neighbors provide tasks, and associates are the primary providers of financial/material aid and advice. In planning care for a client, these network members should be included to provide the respective type of help. For example, a client who is being discharged to home with a leg cast may be able to depend on a neighbor to help with household tasks or drive the children to school. In forming a support group in a rural community, family and friends of the group members could be encouraged to participate in the group.

Because rural individuals are reluctant to seek help beyond their family, they will most likely delay seeking health care, and they may not view themselves as needing health services. Health planning in rural areas must be a deliberate process which documents the need for a service and includes the community in the process. Unless the community perceives a need for help and supports a health program to meet the need, utilization of the services will not occur. Instituting programs that are not utilized increases the cost of health care. Deliberate planning is more crucial in a rural area where there are fewer individuals being served, as compared to large metropolitan areas where there is likely to be a greater number of users of a service.

Another implication of reluctance to seek help is related to health education. Since rural individuals are more likely to delay seeking health care, there is a need for teaching them how to manage
uncomplicated acute and chronic health problems, and how to recognize when professional health care is needed. In teaching health promotion and self-management of selected health problems, the nurse can foster the independence that rural individuals value, while at the same time teaching that dependence is also healthful.

Men were more likely than women not to seek help at all. It is highly unlikely that men would attend health education programs in any great number, and a more subtle method of changing their value about help-seeking is needed. Inclusion of health promotion education on primary care visits is one method for accomplishing this goal. Another method is to include farmers and ranchers on health-related committees such as alcohol advisory boards, mental health advisory boards, and planning committees for new health services. By involving men on these committees, they may come to appreciate the need for services. Furthermore, they will most likely share information from these committees with their network members, who may also be persuaded to utilize a service.

The study has demonstrated that social network analysis is a useful tool for studying complex interpersonal and social interactions and the relationship of these interactions to help-seeking behavior. Network analysis can be used as a tool in community assessment to provide data about health behavior norms. It is a tool which can be used with individual or family clients to identify existing patterns
of help, and to identify other network members who may be relied upon for various kinds of help.

Limitations

There were several limitations to the study and each is discussed separately.

Sample. Subjects for the sample were restricted; only individuals listed in the telephone books were eligible for the sample.

Reliability and Validity of the Tool. Since there were no known measures of social networks or help-seeking which had reliability and validity data available, reliability and validity of the tool could not be established.

Network Members. Only important people, as defined by the researcher, were eligible to be listed by the respondent as network members. The study reflects only interactions between the focal person and important people in their network; there may be other network members with whom the focal person had different kinds of interactions.

Kinds of Content. The content exchanges in the study were defined as types of help. Some respondents did not indicate any type of content exchange for some of their network members. The researcher assumed that these linkages were non-functional only for the type of
content included in the study. The social network does provide other content, such as socialization, but these were not included since the primary focus of the study was help-seeking behavior.

**Measurement of Density.** The measure of density in this study was neither reliable nor valid. The researcher doubts that this variable can be measured without checking with each network member listed and having them validate how many other people they know, given that "know" is defined.

**Help-Seeking Question.** The question on the tool related to seeking help was very general; it obtained data about help-seeking for most distressing or troublesome events, which were not defined for the respondent.

**Recommendations**

The study generated several hypotheses related to rural network structural and linkage characteristics and help-seeking behavior. These hypothesis need to be investigated in the future studies:

1. Frequency of contact is related to network dispersion.
2. Reciprocity of content is related to the category of relationship.
3. Rural individuals who do not seek help beyond their family have networks with the following characteristics: small range, primarily family style, high density, uniplex and symmetrical linkages.
4. Rural individuals who seek help from their entire network have networks with the following characteristics:
large range, low density, varied primary style, multiplex and asymmetrical linkages.

5. Individuals who utilize their entire network for help will be more satisfied with their network than individuals who do not seek help.

Since this study investigated only general help-seeking behavior, further investigation is needed about help-seeking in relation to specific health problems. A suggestion is to take specific events from the Holmes and Rahe Social Readjustment Scale and investigate from whom individuals seek help for those events. The Holmes and Rahe scale has been tested for reliability and validity.

The study has demonstrated the usefulness of network analysis as a tool for examining complex social interactions and their relationship to help-seeking behavior. Network analysis needs to be utilized in nursing research related to other areas of health behavior, such as utilization of health services, compliance with care regimens, and health promotion practices.

Continued research utilizing the social network concept can assist nurses and other health professionals to better understand the complex nature of social relations and how they affect health behaviors. By understanding these relationships, health care professionals can better provide holistic care for their clients.
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McKinlay, J. B. Some approaches and problems in the study of the use of services - an overview. Journal of Health and Social Behavior, 1972, 13, 115-152.


This questionnaire has been developed to learn what kinds of relationships people develop and what role those relationships serve. In filling out the questionnaire, it is hoped that you can get a "picture" of the network of people you have in your life that are important to you. It should take you approximately 50 to 60 minutes (depending on the number of people in your network) to complete this form. There are three parts and each part has a set of Directions for you to follow. Thank you for taking the time to complete this questionnaire.

PART ONE

DIRECTIONS:

We have many people in our lives that we form different kinds of relationships with. In this part you will list only those people who are important to you and you will list them by the kind of relationship you have with them. For each person you list you are also asked to provide information about your relationship with them (this information is explained in detail below).

WHO TO LIST: Each of the first four pages of the questionnaire is for a particular category of relationship which is given at the top of the first column. The people you list in each category should be only those people in your life who are important to you. Use this definition of important to help you decide whom you should list: IMPORTANT people are those persons 1) with whom you have an ongoing relationship; and 2) who provide you with support, advice, or assistance; and 3) with whom you have contact by phone, letter, or face-to-face at least once a year. Both sides of each page can be used to list people - use as much or as little space as you need. List people using only their first names or initials. Put only one person on each line.

CATEGORIES: There are four categories of relationships we usually form with people. Each person you list is to be placed in the one category which best describes your relationship with them. The choices are:

Family - Your kin, including your spouse and children.
Friend - Those persons you consider to be friends.
Neighbor - Important persons who live near you, but are not listed in any other category.
Associate - Important persons with whom you come in contact for a common reason (such as a co-worker, club or church member) and have not been listed in any other category.

(Continued)
(PART ONE -- DIRECTIONS, continued)

HOW FAR THEY LIVE FROM YOU: For each person listed, estimate the number of miles away from you they live and enter it in this column. If they live in your home, enter a "0".

FREQUENCY OF CONTACT: Place an "X" in the column which best describes how often you have face-to-face, letter, or phone contact with each person listed. The choices are:

- Frequently - You have contact with the person at least twice a month.
- Occasionally - You have contact with the person less than twice a month, but more than once a year.
- Rarely - You have contact with the person once a year or less.

CONTENT OF THE RELATIONSHIP: There is a column for you to check what kinds of things each person listed provides for you and a column for you to check what kinds of things you provide for each person. The things provided are not necessarily the same for both of you, although they can be. For example, the person may provide support for you, but you may provide tasks for them. Check as many of these choices as apply for each person listed:

- Support - This refers to the provision of encouragement, personal warmth, love, and emotional support.
- Advice - This refers to the provision of important information, specific recommendations, referral to another person, or guidance on how to solve a problem.
- Financial/Material Aid - This refers to the provision of money, food, clothing, or the borrowing or loaning of equipment.
- Tasks - This refers to providing transportation, babysitting, helping with household or work duties, helping with the daily care of family members, and other similar tasks.

HOW MANY PEOPLE KNOW EACH OTHER: The last column is for you to indicate approximately how many of all the people you listed each individual person knows. You should list all the people under all four categories and complete the other columns for each person listed before you complete this column. In other words, after you have filled in all the information requested in the other columns for each person, then go back and fill in this column.
<table>
<thead>
<tr>
<th>Family Members</th>
<th>How far from you do they live?</th>
<th>Frequency of Contact</th>
<th>Content of Relationship: what the person provides for you</th>
<th>Content of Relationship: what you provide the person</th>
<th>approximately how many other persons in this, or any other category, does this person know?</th>
</tr>
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<tbody>
<tr>
<td></td>
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<td>Freq</td>
<td>Occasional</td>
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<td>Friend Members</td>
<td>How far from you do they live?</td>
<td>Frequency of Contact</td>
<td>Content of Relationship: what the person provides for you.</td>
<td>Content of Relationship: what you provide the person.</td>
<td>approximately how many other persons in this, or any other category, do they know?</td>
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<td>FREQUENCY OCCASIONALLY WEEKLY</td>
<td>SUPPORT ADVICE FINANCIAL ACTIVITY TASKS</td>
<td>SUPPORT ADVICE FINANCIAL ACTIVITY TASKS</td>
<td></td>
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<tr>
<td>Neighbor Members</td>
<td>Frequency of Contact</td>
<td>Content of Relationship: what the person provides for you</td>
<td>Content of Relationship: what you provide the person</td>
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</tr>
<tr>
<td>Associate</td>
<td>Members</td>
<td>Frequency of Contact</td>
<td>Content of Relationship what the person provides for you</td>
<td>Content of Relationship what you provide the person</td>
<td>approximately how many other persons in this, or any other category, does this person know?</td>
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<td></td>
<td>FREQUENTLY</td>
<td>OCCASIONALLY</td>
<td>NEARLY</td>
<td>SUPPORT</td>
</tr>
</tbody>
</table>
PART TWO

DIRECTIONS:

Over the course of our lives we may experience troublesome or distressing events. For most troublesome events that you are faced with, which one of the following statements best describes whom you seek support, advice, or assistance from:

( ) a. For most troublesome events that I am faced with, I do not seek support, advice, or assistance from anyone.

( ) b. For most troublesome events that I am faced with, I seek support, advice, or assistance only from my spouse.

( ) c. For most troublesome events that I am faced with, I seek support, advice, or assistance only from my spouse and family.

( ) d. For most troublesome events that I am faced with, I seek support, advice, or assistance from my spouse, family, friends, neighbors, and/or associates.

Comments: ________________________________

PART THREE

DIRECTIONS:

Finally, we would like to have some general information about you so we can understand how different types of people develop their relationships. Please check the appropriate answer:

1. Your Sex: ( ) Male ( ) Female

2. Your Marital Status:
   ( ) Single
   ( ) Married
   ( ) Separated
   ( ) Divorced
   ( ) Widowed

(Continued)
3. Your Age:
   ( ) 18-25
   ( ) 26-35
   ( ) 36-45
   ( ) 46-55
   ( ) 56-65
   ( ) 66 or older

4. Your Occupation: ____________________________

5. Where do you reside?
   ( ) In town
   ( ) On a farm or ranch
   ( ) Outside of town, but not on a farm or ranch
   ( ) On a farm or ranch, but occasionally in town

6. How long have you lived in your present area?
   ( ) Less than a year
   ( ) 1-5 years
   ( ) 6-10 years
   ( ) 11 or more years

7. How long has your family resided in this area?
   ( ) One generation
   ( ) Two generations
   ( ) Three generations or more
   ( ) Not Applicable

8. If you have any additional comments about the questionnaire please make them here:
Appendix B. Pilot Study Tool.

This questionnaire has been developed to learn what kinds of relationships people develop and what role those relationships serve. In filling out the questionnaire, it is hoped that you can get a "picture" of the network of people you have in your life that are important to you. It should take you approximately 30 to 40 minutes to complete this form. Each part is prefaced by a set of Directions. Thank you for taking the time to complete this questionnaire.

PART ONE

DIRECTIONS:

This section consists of placing the important people in your life into categories according to the type of relationship you have with them. For each person you list you are also asked to provide information about your relationship with them. Each of the first four pages of the questionnaire is for a particular category of relationship which is designated in the first column. Both sides of each page can be used to list people; you may use as much or as little space as you need.

WHO TO LIST: The people you list in each category should be only those people in your life that are important to you. Important people are: those with whom you have an ongoing relationship; who provide you with support, advice, or assistance; and with whom you have contact by phone, letter, or face-to-face at least once a year. List only their first name or initials.

CATEGORIES: Each person is to be placed in the one category which best describes your relationship with them. The choices are:

Family - Your kin, including your spouse and children.
Friend - Those persons you consider to be friends.
Neighbor - Those persons who live near you.
Associate - Those persons with whom you come in contact for a common reason (such as a co-worker, club or church member) and have not been listed in any other category.

HOW FAR THEY LIVE FROM YOU: For each person listed, estimate the number of miles away from you they live and enter it in this column. If they live in your home, enter a "0".

(Continued)
(PART ONE - DIRECTIONS, continued)

FREQUENCY OF CONTACT: Place an "X" in the column which best describes how often you have face-to-face, letter, or phone contact with each person listed. The choices are:

- Frequently - You have contact with the person at least twice a month.
- Occasionally - You have contact with the person less than twice a month, but more than once a year.
- Rarely - You have contact with the person once a year or less.

CONTENT OF THE RELATIONSHIP: There is a column for you to check what kinds of things each person listed provides for you, and a column for you to check what kinds of things you provide for each person. The things provided are not necessarily the same for both of you, although they can be. For example, the person may provide support for you, but you may provide tasks for them. The choices are:

- Support - This refers to the provision of encouragement, personal warmth, love, and emotional support.
- Advice - This refers to the provision of important information, specific recommendations, referral to another person, or guidance on how to solve a problem.
- Financial/Material Aid - This refers to the provision of money, food, clothing, or the borrowing or loaning of equipment.
- Tasks - This refers to providing transportation, babysitting, helping with household or work duties, helping with the daily care of family members, and other similar tasks.

HOW MANY PEOPLE KNOW EACH OTHER: The last column is for you to indicate approximately how many of all the people you listed each individual person knows. You should list all the people under all four categories and complete the other columns for each person listed before you complete this column. In other words, after you have filled in all the information requested on the next four pages, then complete this column.
<table>
<thead>
<tr>
<th>Family Members</th>
<th>How far from you do they live?</th>
<th>Frequency of Contact</th>
<th>Content of Relationship: what the person provides for you</th>
<th>Content of Relationship: what you provide the person</th>
<th>approximately how many other persons in this, or any other category, does this person know?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>FREQUENTLY</td>
<td>SUPPORT</td>
<td>ADVICE</td>
<td>FINANCIAL</td>
</tr>
<tr>
<td>Friend Members</td>
<td>Frequency of Contact</td>
<td>Content of Relationship: what the person provides for you</td>
<td>Content of Relationship: what you provide the person</td>
<td>approximately how many other persons in this, or any other category, does this person know?</td>
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<td></td>
</tr>
<tr>
<td>Neighbor Members</td>
<td>Frequency of Contact</td>
<td>Content of Relationship: what the person provides for you</td>
<td>Content of Relationship: what you provide the person</td>
<td>approximately how many other persons in this, or any other category, does this person know?</td>
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<td></td>
<td>How far from you do they live?</td>
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</tr>
<tr>
<td>Associate Members</td>
<td>Frequency of Contact</td>
<td>Content of Relationship what the person provides for you</td>
<td>Content of Relationship what you provide the person</td>
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<tr>
<td>How far from you do they live?</td>
<td>FREQUENTLY</td>
<td>OCCASIONALLY</td>
<td>SUPPORT</td>
<td>ADVISE</td>
<td>FINANCIAL ADVICE</td>
</tr>
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<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

approximately how many other persons in this, or any other category, does this person know?
PART TWO

DIRECTIONS:

Over the course of our lives we may experience troublesome or distressing events. People have different opinions about seeking support, advice, or assistance when faced with a troublesome event. Which one of the following statements best describes what your opinion is:

( ) a. When faced with a troublesome event, you should not seek support, advice, or assistance from anyone.

( ) b. When faced with a troublesome event, you should seek support, advice, or assistance only from your spouse.

( ) c. When faced with a troublesome event, you should seek support, advice, or assistance only from your spouse and your family.

( ) d. When faced with a troublesome event, you should seek support, advice, or assistance from your spouse, family, friends, neighbors, and/or associates.

( ) e. I am undecided about what my opinion is about seeking support, advice, or assistance for a troublesome event.

Comments: ____________________________________________

PART THREE

DIRECTIONS:

Finally, we would like to have some general information about you so we can understand how different types of people develop their relationships.

1. Your Sex: ( ) Male ( ) Female

2. Your Marital Status:
   ( ) Single
   ( ) Married
   ( ) Separated
   ( ) Divorced
   ( ) Widowed

(Continued)
3. Your Age:
   (  ) 18-25
   (  ) 26-35
   (  ) 36-45
   (  ) 46-55
   (  ) 56-65
   (  ) 66 or older

4. Your Occupation: ________________________________

5. Where do you reside?
   ( ) In town
   ( ) On a farm or ranch

6. How long have you lived in your present area?
   ( ) Less than a year
   ( ) 1-5 years
   ( ) 6-10 years
   ( ) 11 or more years

7. How long has your family resided in this area?
   ( ) One generation
   ( ) Two generations
   ( ) Three generations or more
   ( ) Not Applicable

8. Comments:
Appendix C. Pilot Study Evaluation Tool.

1. Did you understand the Directions in Part One? YES ___ NO ___

If not, please (✓) which of the following directions you did not understand in Part One (give comments about what you did not understand):

_____ Who to List
Comments:

_____ Categories
Comments:

_____ How Far From You They Live
Comments:

_____ Frequency of Contact
Comments:

_____ Content of Relationship
Comments:

_____ How Many People Know Each Other
Comments:

2. Did you understand the Directions in Part Two? YES ___ NO ___

Did you understand the Directions in Part Three? YES ___ NO ___

If not, what didn't you understand?
3. Were there any other parts of the questionnaire you did not understand? YES ___ NO ___
   If YES, what parts didn't you understand?

4. Approximately how long did it take you to fill out the questionnaire?
   20 minutes ____  40 minutes ____  1 hour or longer ____
   30 minutes ____  50 minutes ____

5. When would be the best time to send this questionnaire to rural people?
   early September ____  early October ____  Other (please specify)
   mid September ____  mid October ____
   late September ____  late October ____

6. Comments:
Appendix D. Pilot Study Letter.

Dear Rural Resident:

I am a Registered Nurse who is in the Graduate Program at Montana State University. I am doing a study of the relationships rural people form. Sometimes nurses need to know how other people can help care for someone. This study will tell us who gives support, advice, or assistance to rural people. The study will also tell us who rural people think they should get help from when they have a problem. The study is being done because there is no information available about rural relationships.

The purpose of this part of the study is to find out if people can understand the enclosed questionnaire. If there are problems with it, they will need to be corrected for the next part of the study. Your help is therefore very important to the results of the study.

Your name was taken from a telephone book. The study does not involve any risks to you. All you have to do is fill out the enclosed questionnaire and evaluation form. The questionnaire and evaluation will be coded so that you will remain anonymous. Your answers will only be used to help me make changes in the questionnaire.

The questionnaire and evaluation should be filled out by someone in your family who is 18 years old or older. Please feel free to make comments on the questionnaire or the evaluation form. This will be very helpful to me in making needed changes. After the questionnaire and evaluation are filled out, return them in the pre-addressed envelope no later than June 30, 1981. If you have any questions about the study or the questionnaire, please call me collect at 454-1668.

Your help in this study is greatly appreciated. Thank you for taking the time to give your valuable information and comments.

Sincerely,

Elizabeth C. Veign, R.N.
Graduate Student
Montana State University
Appendix E. County List.

<table>
<thead>
<tr>
<th>County</th>
<th>Population</th>
<th>Question. Sent</th>
<th>Question. Received</th>
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</thead>
<tbody>
<tr>
<td>Carter</td>
<td>1799</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>Powder River</td>
<td>2520</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>Garfield</td>
<td>1656</td>
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<td>3</td>
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<tr>
<td>Petroleum</td>
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<td>6</td>
<td>1</td>
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<tr>
<td>Golden Valley</td>
<td>1026</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Meagher</td>
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<td>12</td>
<td>1</td>
</tr>
<tr>
<td>McCone</td>
<td>2702</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>Prairie</td>
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<tr>
<td>Treasure</td>
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<td>Phillips</td>
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<td>6</td>
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<td>Judith Basin</td>
<td>2646</td>
<td>12</td>
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<td>Wheatland</td>
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<tr>
<td>Wibaux</td>
<td>1476</td>
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<td>0</td>
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</tbody>
</table>
Dear Post Master:

I am a Registered Nurse currently enrolled in the Graduate Program at Montana State University. I am conducting a study of rural relationships and whom rural people seek help from when they have a problem.

Data for the study will be gathered in late October through the use of a mailed questionnaire. Participants for the study have been randomly selected from the telephone books of 21 Montana County Seats. The names selected from the phone books were only those which were designated as N, E, S, W, etc. of the town. This will be an insufficient address when I mail the questionnaires in late October. Correct mailing addresses for the participants will expedite post office handling of the questionnaires and ensure that the participants receive them.

I have enclosed a list of those study participants who have been randomly selected from your area. I would appreciate it very much if you could supply the correct mailing address for each and return the list to me in the enclosed prestamped envelope as soon as possible. You have my assurance that the list will only be used for this study and it will be destroyed when the questionnaires have been mailed.

Your help in this matter is most appreciated. Should you have any questions you can reach me at 454-1668. Thank you.

Yours truly,

Elizabeth C. Veign, R.N.
Graduate Student
Montana State University
Dear County Extension Agent:

I am a Registered Nurse currently enrolled in the Graduate Program at Montana State University. In late October I will be conducting a study of the relationships rural people form. The study will provide information about who gives support, advice, or assistance to rural people, and whom they seek help from when faced with a distressing event. The study is being conducted because there is no information available about rural relationships and who rural people seek help from when they have a problem.

Data will be collected utilizing a mailed questionnaire which will be sent to a random sample of rural farmers and ranchers who reside in Montana counties which have a population density of less than two; a proportionate number of questionnaires will be sent to each county based on county population. A questionnaire return rate of at least one third will be imperative to the generalizability of the study results.

I have discussed the study with Monte Gagliardi at the MSU Extension Services and he is most interested in the results. He suggested that I contact the County Agents for assistance with the questionnaire returns. Because some study participants may be reluctant to return questionnaires to a stranger, I am soliciting your assistance in this study by requesting your permission to have the participants in your county return their questionnaires to you rather than me since you may be someone they are familiar with. This would enhance the probability of a higher questionnaire return rate.

A list is enclosed which indicates the number of questionnaires which will be mailed in each county. If you agree to have the questionnaires from your county returned to you, I will provide you with: 1) a preaddressed box or envelope for returning the questionnaires to me; 2) reimbursement for postage; and 3) a summary of the study results when completed. All you will need to do is put the questionnaires in the box or envelope as you receive them, and then return them to me by a given deadline.
August 25, 1981

I have enclosed a preaddressed post card for you to indicate whether or not you agree to have questionnaires from your county returned to you. Please check your response and return to me by September 15, 1981. If you agree to assist in the study, a packet will be sent to you in October. Your assistance in the study will be most appreciated.

Sincerely,

Elizabeth C. Veign, R.N.
Graduate Student
Montana State University

Enclosures

cc: Monte Gagliardi
Appendix H. Second Letter to County Agents.

708 15th Street South
Great Falls, MT 59405
September 30, 1981

Dear [Name]:

Thank you for agreeing to assist in the study on rural relationships by collecting the questionnaires from your county. As promised in the letter you received in early September, this is your packet for collecting the questionnaires. Your packet includes:

1. A list of the number of questionnaires sent in each county so you will have an estimate of how many may be returned to you; I am hoping for at least a 33 percent return rate.

2. Either a box or envelope preaddressed to me which is to be used to send the collected questionnaires back to me.

3. A 3x5 card with your county and name and address on it. The card has a place for you to indicate the cost of return postage and whom the check for postage reimbursement should be made payable to. Please weigh the box or envelope prior to sealing it so you can enclose the 3x5 card in it.

The following is the schedule of questionnaire mailings:

October 19  I will mail the questionnaires to the participants.

October 29  I will mail a reminder to the entire sample requesting them to return their questionnaire if they have not done so.

November 12  This is the deadline given to the participants for returning their questionnaires.
Some people may require additional time to complete their questionnaires after the reminders are sent; therefore, this is the last date that you should accept questionnaires. After this date any questionnaires which are returned should be discarded.

Mail the box or envelope of collected questionnaires back to me.

The questionnaires will be returned in a 6x9 brown manila envelope and the word "questionnaire" will be written in the lower left corner along with the county and the county's code number. There is a possibility that some participants may call you with their questions about the study or the questionnaire. I have indicated in my letter to the participants that they should call me collect if they have questions. In the event you receive calls, please instruct the participant to call me collect at 454-1668. This will provide consistency in what participants are told about the study or the questionnaire. Should you have any questions, please don't hesitate to call me.

Thank you again for your assistance in this study. I am sure that your help will enhance the return rate of the questionnaires which is a crucial factor in this research project. A summary of the study results will be sent to you when it is completed.

Sincerely,

Elizabeth C. Veign, R.N.
Graduate Student
Montana State University
Appendix I. Letter to Study Participants.

708 15th Street South
Great Falls, MT 59405

Dear Rural Resident:

I am a Registered Nurse who is in the Graduate Program at Montana State University. I am doing a study of the relationships rural people form. Sometimes nurses need to know how other people can help care for someone. This study will tell us who gives support, advice, or assistance to rural people. The study will also tell us whom rural people get help from when they have a problem. The study is being done because there is no information available about rural relationships or whom rural people seek help from when they have a problem. This information is needed by nurses (and other professionals) in order to provide better health care for rural residents.

Your name was taken from a telephone book as part of a well controlled sample. Your response is very important to the results of the study. The study does not involve any risks to you. All you have to do is fill out the enclosed questionnaire. By returning the questionnaire, you are consenting to take part in the study. The questionnaires will be coded so that you will remain anonymous. Your answers will only be used to help describe rural relationships. The list of names taken from the telephone books will be destroyed when the questionnaires are returned.

The questionnaire should be filled out by someone in your family who is 18 years old or older. After the questionnaire is filled out, return it in the pre-addressed envelope no later than November 12, 1981. If you want a summary of the results of the study, put your name and address on the enclosed 3x5 card. Mail the card back in the envelope with the questionnaire. A summary of the results will be mailed to you when the study is done. A copy of the completed study will be available in the library at the School of Nursing, Great Falls Extended Campus.

If you have any questions about the study or the questionnaire, please call me collect at 454-1668.
Your help in this study is greatly appreciated. Thank you for taking the time to give your valuable information.

Sincerely,

Elizabeth C. Veign, R.N.
Graduate Student
Montana State University
Table 12. Network Structural Characteristics According to Age.

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Fam</th>
<th>Frnd</th>
<th>Neigh</th>
<th>Assoc</th>
<th>Mean Range</th>
<th>Mean Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-25</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>--</td>
<td>--</td>
<td>54</td>
<td>.53 (4)</td>
</tr>
<tr>
<td>26-35</td>
<td>13</td>
<td>8</td>
<td>2</td>
<td>--</td>
<td>--</td>
<td>39</td>
<td>.50 (8)</td>
</tr>
<tr>
<td>36-45</td>
<td>14</td>
<td>5</td>
<td>6</td>
<td>--</td>
<td>2</td>
<td>45</td>
<td>.49 (10)</td>
</tr>
<tr>
<td>46-55</td>
<td>9</td>
<td>7</td>
<td>1</td>
<td>--</td>
<td>--</td>
<td>36</td>
<td>.47 (4)</td>
</tr>
<tr>
<td>56-65</td>
<td>12</td>
<td>9</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>40</td>
<td>--</td>
</tr>
<tr>
<td>66+</td>
<td>10</td>
<td>5</td>
<td>--</td>
<td>2</td>
<td>1</td>
<td>35</td>
<td>.45 (6)</td>
</tr>
</tbody>
</table>

Note - Abbreviations for styles: Fam = Family, Frnd = Friend, Neigh = Neighbor, and Assoc = Associate.

*The totals may not equal N because the primary style could not be determined for some networks.*

*Numbers in parentheses indicate number for which density could be calculated.*
<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Mean Frequency of Contact</th>
<th>Mean No. Functional Linkages</th>
<th>Mean No. Multiplex Linkages</th>
<th>Mean No. Asymmetrical Linkages</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-25</td>
<td>4</td>
<td>2.63</td>
<td>54</td>
<td>30.75</td>
<td>6.00</td>
</tr>
<tr>
<td>26-35</td>
<td>13</td>
<td>2.31</td>
<td>32.15</td>
<td>20.31</td>
<td>11.85</td>
</tr>
<tr>
<td>36-45</td>
<td>14</td>
<td>2.31</td>
<td>42.93</td>
<td>19.93</td>
<td>6.21</td>
</tr>
<tr>
<td>46-55</td>
<td>9</td>
<td>2.36</td>
<td>45.33</td>
<td>21.56</td>
<td>14.89</td>
</tr>
<tr>
<td>56-65</td>
<td>12</td>
<td>2.40</td>
<td>27.89</td>
<td>12.00</td>
<td>9.33</td>
</tr>
<tr>
<td>66+</td>
<td>10</td>
<td>2.39</td>
<td>30.33</td>
<td>18.89</td>
<td>6.56</td>
</tr>
</tbody>
</table>
Table 14. Mean Content Exchange Provided for the Focal Person According to Dispersion.

<table>
<thead>
<tr>
<th>Miles</th>
<th>Support</th>
<th>Advice</th>
<th>F/M Aid(^a)</th>
<th>Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-20</td>
<td>14.6</td>
<td>9.59</td>
<td>4.28</td>
<td>8.57</td>
</tr>
<tr>
<td>21-40</td>
<td>2.10</td>
<td>.95</td>
<td>.49</td>
<td>.97</td>
</tr>
<tr>
<td>41-60</td>
<td>1.23</td>
<td>.33</td>
<td>.11</td>
<td>.25</td>
</tr>
<tr>
<td>61-80</td>
<td>1.00</td>
<td>.38</td>
<td>.10</td>
<td>.25</td>
</tr>
<tr>
<td>81-100</td>
<td>.80</td>
<td>.30</td>
<td>.13</td>
<td>.10</td>
</tr>
<tr>
<td>101-120</td>
<td>.23</td>
<td>.05</td>
<td>.02</td>
<td>.05</td>
</tr>
<tr>
<td>121-140</td>
<td>.16</td>
<td>.16</td>
<td>.07</td>
<td>.07</td>
</tr>
<tr>
<td>141-160</td>
<td>.38</td>
<td>.28</td>
<td>.07</td>
<td>.11</td>
</tr>
<tr>
<td>161-180</td>
<td>.48</td>
<td>.11</td>
<td>.02</td>
<td>.07</td>
</tr>
<tr>
<td>181-200</td>
<td>.93</td>
<td>.56</td>
<td>.18</td>
<td>.28</td>
</tr>
<tr>
<td>201+</td>
<td>6.13</td>
<td>1.85</td>
<td>.67</td>
<td>.37</td>
</tr>
</tbody>
</table>

N = 61

\(^a\)Financial/material aid
An exploratory study of the nature of rural social networks and help-seeking