Social support as an influential factor in treatment-seeking

Liana Christine Gonzalez

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SOCIAL SUPPORT AS AN INFLUENTIAL FACTOR
IN TREATMENT-SEEKING

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Social Work

by
Liana Christine Gonzalez
June 2005
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ABSTRACT

Consideration of budget constraints and the need for cost-effective treatment planning has seldom been as crucial in the social work field as it is today. This exploratory study sought to address such issues in providing evidence that it may prove beneficial to the profession to harness naturally occurring social support networks among client systems as tools to cost-effectively address client needs. The study was conducted using a quantitative design and subsequent statistical analysis to determine the extent to which social support will influence an individual’s decision to seek treatment for medical illness. Main findings include significant correlations between measures of perceived and tangible social support and treatment compliance, interpreted to support the study hypothesis.
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To my mother, whose quiet strength and courage fed my own throughout not only this process, but that of life itself.
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CHAPTER ONE
INTRODUCTION

Chapter one contains an overview of the researcher's conceptualization of the study. First, the problem statement is expressed and examined. Second, the purpose of the study is detailed. Lastly, the significance that this study has for social work practice is presented.

Problem Statement

This study has been conducted to discover if an association exists between social support and help-seeking behaviors among mental health clients, in either positive or negative correlations. One of the hypotheses of the study is that clients who have weak ties to their social network are less apt to seek and stay in treatment. In the case of mental health clients in particular, the role of the significant other (i.e. family, friends, romantic relationships) is vital. This is due to the fact that a mental illness harms a client primarily in a social way, more so than a physical illness would.

The significance of social support has been recognized in the healthcare field dating back as early
as Charles Darwin in the late 1800s. Sarason, Sarason and Pierce (1990) report that Darwin recognized a distinct, physical and positive reaction to a social relationship in one of his father's patients, whose irregular heartbeat would correct itself when the doctor would enter the room. Durkheim, in the early 1900s, also contributed to the concept of social support in asserting that the probability of suicide was increased for those who, among other stressors, lack social relationships. More recently, Cassel (1976) reviewed social support as a buffer to stress, and Cobb, in the same year, explored his belief that social support was a protective factor from pathological states. The fields of psychology, child development, and social work continued to branch off with such key ideas and personalize their research to address their specific needs.

Social work has acknowledged the link between social support and treatment success in the very essence of the field itself. Indeed, social workers are among the main stakeholders on the subject; others include social service agencies, health care agencies, and researchers. On a macro level, administrators and policy makers in these areas are concerned with issues of how to
effectively address health problems, both mental and physical. Macdonald (1998) stated that alternative sources of social care were sought by policy makers and planners in the social service and health industries in order to offset rapidly climbing costs. One alternative was the "promotion of naturally occurring social supports, from family and friends of those in need" (p. 564). Given today's political constraints and budget crises, the emphasis on understanding and utilizing social support as a resource is now more than ever paramount to the success of social work as a profession.

Micro practitioners have, in recent years, incorporated social support into their assessment routine. It is viewed as a potential resource for clients during difficult times, and also provides insight to the social worker regarding the client's lifestyle and general circumstances that possibly contribute to the severity of the client's problems. Some agencies take a more integrated approach to treatment than others, involving social support resources as an active component of treatment. For example, as part of the vision of local Arrowhead Regional Medical Center, the patient, social worker, other hospital staff and the patient's family are
considered equal partners in the health care team (ARMC Policy & Procedures).

Access to a client's social support system is, however, limited by an integral part of social work ethics and agency policy. Confidentiality, though vitally important, often presents a barrier to the social worker during treatment planning. This becomes more of an issue in areas such as medical social work as opposed to one-on-one therapy. During therapy, social support networks are discussed and the client is encouraged to make use of them, but this usually does not come to a point where the practitioner feels the need to become personally involved. By contrast, in medical social work, the practitioner actively assists the client in the pooling of resources, both agency and social. In this case the client must supply permission to break standard confidentiality policy, and failing to do so may have detrimental effects to care provided by the social worker.

Purpose of the Study

This study has sought to examine the relationship between social networks and motivations for treatment. It
was conducted to investigate the importance of incorporating and utilizing social support resources in client assessment and intervention. Findings confirming the research hypotheses may reinforce existing thoughts on the correlation between social support and treatment success.

Hepworth, Rooney, and Larsen (2002) commented that while a nurturing environment is critical to the development of healthy infants and children, it has recently become clear that a large benefit and need exists for adults as well (p. 255). Among their list of potential benefits is "physical care when persons are unable to care for themselves due to illness, incapacity, or severe disability" (p. 255). This thought lends insight to a widespread need among the mentally ill population. Physical care, for example, may involve driving a severely depressed or otherwise mentally incapacitated individual to an appointment, or ensuring the proper use of medication.

This need increases along with various factors such as age. The needs of elderly populations have warranted attention through special government allocations to form Adult Protective Services. The original deficit that the
agency addresses often is that of inadequate or inaccessible social support. In this case, social workers step in to temporarily address the need.

From a professional standpoint, as mentioned earlier, social service and healthcare practitioners are increasingly concerned with cost-effective treatment. This concern is for individual clients as well as organizations and business practices as a whole. The less direct professional treatment required to fill a client's need, the more people can be served, and the healthier and more productive society will be, ideally speaking. Social workers especially seek collaborative efforts to effectively treat client problems. The social worker deals with client problems and issues that are social in nature, and therefore the general assumption is that a socially rooted solution is necessary.

It is also key that the benefits of treatment are sustained. Social workers in general attempt to equip clients with resources and pathways to their own post-treatment solutions. For instance, it is acknowledged that a mentally ill individual experiencing an acute episode will be unable to make full use of the medical care provided at an institution unless the
patient follows through with care at home upon release. A social worker would assess and perhaps provide resources such as transportation assistance, crisis hotline information, or referral to home health services.

The methods employed in this research study consist of quantitative data collection and statistical analysis. The agency of focus was a private psychiatric practice, and the sample consisted of patients. Data were collected quantitatively, by way of a questionnaire. This is a method of choice as it is necessary to quantify the strength of social support systems for comparison to treatment rates, and also to compare clients among themselves in the sample. In addition, two types of data were sought within the questionnaire, both perceived social support and social network size.

Significance of the Project for Social Work Practice

On a macro level, consideration of budget constraints and the need for cost-effective treatment planning has seldom been as crucial in the social work field as it is today. This study sought to address such issues in providing evidence that it may prove beneficiary to the profession to harness naturally
occurring social support networks among client systems as tools to cost-effectively address client needs. This will potentially decrease treatment expenses and improve overall efficiency in handling caseloads.

From a micro perspective, this study impacts practice by backing the current emphasis on the usefulness of the strengths perspective, and more specifically, client empowerment. Saleebey (1997) emphasized that during work with a client, the entire community should be considered a resource (as cited in Cooper & Lesser, 2002). By contributing to the database of social work knowledge on the subject of social support, micro service practitioners may have increased reason to widen the span of a holistic approach to healing. Client empowerment is becoming a clear goal for practitioners and should be further incorporated into generalist practice models.

With this in mind, the findings of this study impact the generalist intervention process in two crucial phases. The first is assessment, as it involves the gathering of information pertinent to a client’s case. This study offers insight on the pertinence of social support as an influential factor to include in the
assessment process. The second phase impacted will be planning. This will be where existing social support is employed as a treatment tool, and deficits in social support are addressed, for example, with appropriate referrals. Implementing the treatment plan will then consist of a joint effort on the parts of the practitioner and client, furthering client feelings of empowerment and control over their negative circumstances. In addition, successfully empowered clients are then capable of contributing back to social systems by providing increased social support to others.

Overall, since the findings of this study support that the existence of strong social networks and perceived social support by mental health patients influenced their decision to seek and remain in treatment, the knowledge base of the social work profession is expanded toward the emphasis that social support is a key factor to consider during treatment planning. Assessment of social support systems should become a more widespread practice and the integration of those systems into treatment plans should increase. For example, a client who reports having little to no support by friends and family may be more readily referred to
group counseling and/or an activity center (such as a senior center) in order to promote socialization and encourage self-esteem. A client who feels that their social support network is adequate may also benefit from group activity, but it need not be a specific focus.

The question that this study has addressed involves social support as the independent variable and treatment compliance as the dependent. Do stronger perceptions of social support and strength of social networks among clients have a positive influence on treatment compliance? Will study findings suggest that social support is lacking among those clients who do not comply with treatment?
CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter contains a review of relevant literature used to guide this study. First, background on the definition and quantification of social support is provided. Next is a discussion of the implications of social support in its effects on health and help-seeking behavior. Finally, this chapter will include the identification of theories grounding the conceptualization of this study.

Defining and Quantifying Social Support

Much debate continues to exist on the definition and accurate quantification of social support. Reviewed articles discuss and emphasize the importance of distinguishing between measures of perceived social support and more accurate measures of actual social support received. It is for this reason that this study collected data from subjects regarding both perceived measures of social support and the size of the social networks themselves.
Hupcey (1998) provides a discussion of the debate on the issue of emphasizing perceived versus actual social support obtained by clients during a stressful event. The topic is surrounded by controversy, yet those from each school of thought on the matter do agree on the fact that the concept of social support should be studied further. The article further critiques common definitions of social support by assessing missing elements, such as a lack of emphasis on the provider of social support.

According to Hupcey’s (1998) findings, definitions of social support can be sorted into five categories:

1. Type of support provided,
2. Recipient’s perceptions,
3. Intentions or behaviors of the provider of support,
4. Reciprocity (the exchange of resources), and
5. Social networks.

These categories effectively differentiate between definitions emphasizing perceptions of social support (categories 2 & 3), and actual social support provided (categories 1, 4 & 5).

Through an analysis of existing research data on the subject of conceptualizing, defining and measuring social
support, Hupcey (1998) outlines prominent models of social support conceptualization. Hupcey (1998) reviewed a total of 145 research articles spanning years 1993-1996, selected for their inclusion of social support as a major study variable. The methodological limitations of this study involve basic limits in research gathering. Though the sample size was fairly large, it does not encompass all relevant research on the subject. It is, however, helpful to this study in terms conceptualization of common definitions of social support.

Edwards (2004) outlines her investigation of the effectiveness and validity of measures that concentrate on the perception of social support. The Multidimensional Scale of Perceived Social Support (MSPSS), formed by Zimet, Dahiem, Zimet, and Farley (1988) was used to gather data from a sample of 290 Mexican American adolescents, ranging in age from 11 to 18 years (p. 188). The MSPSS measured perceived social support from the domains of family, friends and significant others. For the purpose of measuring discriminant validity, the Familism Scale of Sabogal, Marin, Otero-Sabogal, Marin, and Perez-Stable (1987) and the Multidimensional
Students' Life Satisfaction Scale of Huebner (1994) were used as well (Edwards, 2004).

Edwards (2004) points out that a contrast exists between the results of her study and previous findings with regards to gender. She indicates that prior research has demonstrated high levels of perceived social support among the female gender, while her study revealed no significant differences among females and males. She suggests that further research on the matter should be sought in the future to address this discrepancy.

This study highlights the functional importance of acknowledging the validity and reliability of perceived support measures. As perceptions are difficult to quantify, research that ventures to offer any evidence of quantification is valuable to this study. However, the article does not volunteer an argument as to the author’s preference in choosing to investigate perceived versus actual social support. It can therefore not be determined that one was favored over the other.

Another study acknowledges past difficulties in the conceptualization and measurement of social support, and attempts to address the issue by constructing a measurement tool based on the theoretical framework
offered by Charles Tardy in 1985. Macdonald (1998) reports that Tardy (1985) noted, "achieving conceptual clarity does not mean reaching agreement around a single definition of social support, but achieving some consensus around the dimensions of the concept" (p. 565). Five such dimensions are then identified: direction, disposition, description-evaluation, content, and network.

Macdonald offers a rationale for his efforts to create a measurement tool. He stresses that adequate social support is critical to overall health and well-being (p. 564). He postulates that the role of social support in a client's life may supply "an explanation for why some people succumb to life stressors, whereas others seem protected or insulated against potentially damaging life events" (p. 564).

Macdonald (1998) outlines four content areas in the development of his scales, the Scales of Perceived Social Support (SPSS), based on the work of Tardy and House in 1981 (p. 565). These areas are:

1. Emotional Support,
2. Appraisal Support,
3. Informational Support, and
4. Instrumental Support.

The scales were tested using a sample of 363 undergraduate BSW students and their friends or family. A subsample of 60 also completed the Perceived Social Support Scale of Procidano and Heller (1983), and another subsample was retested using the SPSS one month after taking it originally, for further reliability measures (Macdonald, 1998, p. 566).

Results consisted of 0.86 average internal reliability of the scale, and 0.83 average stability over time. Macdonald (1998) invites the reader to inspect the scale for content validity, and determines that concurrent validity is established due to a good correlation between the SPSS and PSS (p. 569). The article is helpful to this study in terms of further defining and quantifying social support. The difficulty of such a venture is apparent, and the importance of establishing a working definition for the purposes of this study is emphasized.

Sherbourne and Stewart (1991); however, point out discrepancies and flaws regarding such scale testing as that of Macdonald. The authors state that measurements of validity and reliability based on information only from
select samples (such as Macdonald's sample of BSW students) is flawed in that it is highly limiting for multidimensional purposes. They therefore proposed and developed a brief, multidimensional, self-administered social support measure for the purposes of medical social work.

Similar to Macdonald, Sherbourne and Stewart (1991) offer a rationale for basing their scale on perceived social support. They state that it has come to their attention that in recent years, other investigators of the functional components of social support have believed that the perception of availability of support are most essential. Again resonating with Macdonald, the authors list functions including:

1. Emotional Support,
2. Instrumental or Tangible Support,
3. Information, Guidance or Feedback,
4. Appraisal Support, and
5. Social Companionship.

Using these functions as guidelines, a scale was constructed using nineteen items hypothesized to measure them.
The sample size was large, consisting of 2987 patients in the healthcare system. Reliability was determined to be high, with strong correlations of at least 0.72 or greater. Validity was also established with strong correlations among function items.

Sherbourne and Stewart's (1991) study was particularly helpful in that it was formulated to address the need for social support measurement tools for medical social work. Testing and verification among such a wide range of patients is also informative as to the potential for future application. And, in the similarities between Macdonald's emphasized content areas and the functions of social support listed above, there is also a clear dichotomy between perceived and actual social support.

Implications for Health and Help-Seeking Behavior

Thus far it has been established that there is ongoing debate on the issue of properly defining social support. It is also, however, noted that potential categories of social support have been agreed on to some extent in past research, and that the categories can be further sorted into larger groupings of perceived and actual or tangible social support. The implications for
this study are that in order to encompass data on social support that is both valid and reliable, both types of support should be evaluated.

At this point, attention turns to the relationship between the independent and dependent variables, those being social support and help-seeking behavior/treatment compliance. Confirmation of a link between social support and health must be established in order to ground the research hypothesis. Thus far, a review of literature on the subject has found no refutation of the idea that such a link exists.

The work of Perese and Perese (2003) backs this study’s initial assumption that a psychiatric illness impairs functioning in a social setting, “resulting in social isolation and loneliness” (p. 212). The goal of their study was, as related to psychiatric illness, to review the health problems (and factors contributing to them) of women with severe mental illness. Results included limited social support as a main contributing factor to the inability of women with severe mental illness to maintain optimum health. Under the heading of lifestyle practices, House, Landis, and Umberson (1998) noted that lack of social support is linked to increased
rates of illness (both physical and psychiatric), as well as higher mortality rates (as cited in Perese & Perese, 2003, p. 216).

Social support is also mentioned as a tactic used by health professionals to combat harmful behaviors that hinder treatment. So it has been established that analysis of social supports systems has already proved useful in determining treatment options. Such a finding also supports the current study’s rationale that the social work and healthcare professions will benefit from increased emphasis on social support.

Cohen (2001) provides an article that summarizes and comments upon the contribution of a Berkman and Syme (1979) study regarding social relationships and mortality in Alameda County (p. 5). The essential findings of the Berkman and Syme study were that subjects with fewer social ties (as provided by a 1965 baseline survey) were more likely to die over a nine year follow up period (Cohen, 2001). This article, again, backs a link between social support and health.

The significance of the Berkman and Syme study is marked as a contribution to literature on social support. Cohen (2001) comments, "the social support literature is
to a great extent beholden to this study for convincing
behavioral and medical researchers and the funding
agencies that support their research that it was
important to study the role of our social ties in
physical health" (p. 6). The limitations of this article
involve second-hand information, although at the same
time a strength can be identified in that the findings
and contributions of the original have been praised and
reinforced through Cohen.

In terms of actual or tangible support, it has also
been found that the more expanded the social support
network, the greater the potential benefit to the client.
Monroe (1987) conducted a study on levels of involvement
with local kin and its impact on help-seeking behavior.
Monroe interviewed one hundred first-time mental health
applicants seeking outpatient services. Monroe (1987) was
able to determine that participants reporting greater
involvement with local kin received more instrumental and
emotional forms of social support, including greater
encouragement to seek professional services when needed.
He further suggested that the quality of a client’s
involvement with their social support system might be
used as a predictor of delays in treatment seeking. The
significance of Monroe’s (1987) study is in its consistency with current literature on the subject of social support and treatment seeking.

Help-seeking behaviors are incorporated into a study on social support by Mays, Beckman, Oranchak, and Harper (1994). They examined the role of social support in treatment seeking rates of African American alcoholic women, and differentiated among heterosexual, lesbian and bisexual women. Their sample was drawn from new enrollments in a rehabilitation program and consisted of seventy women. These women completed questionnaires regarding both perceived and tangible social support. The questionnaires were adapted by the authors from interview schedules employed in previous studies on alcoholism treatment barriers.

Results indicated that the main difference among the types of women studied was in the sources of perceived social support. Heterosexual women perceived more sources of overall support than lesbian and bisexual women, but the quality of perceived emotional support did not differ significantly among the groups. Mays, Beckman, Oranchak & Harper (1994) also reiterate the hypothesis of the current study, stating “social support networks can act
as buffers to stress, offer information and convey attitudes and norms toward help-seeking behaviors."

An important contribution to be recognized by this study is its efforts to study the impact of social support among minority groups. African American heterosexual, homosexual and bisexual women are subcategorized out of the study's sample, and the results lend a valuable insight into the particular types of social support available or readily used by each group. The findings can be translated into effective techniques for practitioners in the future.

Dew, Dunn, Bromet, and Schulberg (1988) conducted another study of factors affecting help-seeking behavior. Their sample consisted of 741 women residing in similar neighborhoods and dealing with chronic depression. The women were interviewed several times over a twelve month period of time, during which depressive episodes were monitored and indexed according to study criteria (p. 225). The focus of the interviews following the worst episodes were centered around gathering information on help-seeking behavior during those periods (p. 225).

Analysis involved examining differences among those women who sought assistance during depressive episodes,
and those who did not (Dew, Dunn, Bromet & Schulberg, 1988, p. 226). It was found that 40.6% sought professional help and displayed indications of stronger social support networks than those who did not (p. 227). Types of assistance sought were also identified and recorded for analysis.

A significant aspect of this study is the mention that "additional analyses provided convincing evidence that the critical distinctions in help-seeking pertain to which individuals seek help from whom" (p. 231). The statement suggests that while individual fields of practice seek to encourage help-seeking among the mentally ill, rates measured within each field may not be as reliable. That is, a depressed individual might seek help from a medical professional as opposed to a counselor, but this should not negate the fact that help was sought by the client in the first place.

Bristow and Patten (2002) presented an overview of literature regarding treatment-seeking rates and associated factors. Relevant articles were pulled from mainstream databases, assessed according to study criteria, and reviewed in detail. Major findings indicate that between 17.0% and 77.8% of individuals with mental
disorders related to depression sought professional treatment. Among the most influential factors discovered were age, race, and social support. This article builds on the work of Mays, Beckman, Oranchak, and Harper (1994) in reaffirming that differences among client groups should be acknowledged in their effects on help-seeking rates.

Theories Guiding Conceptualization

At this point, the link between social support and treatment seeking rates along with overall health and well-being has been established. It is evident that social support has been quantified and studied for use in past research. The next task is to ground the purposes of this research study in active social theories.

Social integration and social network theories are helpful to this study. According to social network theory, the strength and size of a social network exerts a force on an individual, resulting in a strong influence to either participate or refuse to participate in activities, such as help-seeking (Suk-Young Chwe, 1999). From a sociological perspective, collective action is considered in a study by Suk-Young Chwe (1999), resting
on social network theory to examine incentives for individual participation in societal structures. The social network theory of help-seeking is also outlined by Flynn (2001). Relating to incentives for participation is a study of levels of overall life satisfaction related to social support by Virlev-O’Connow (2002). The findings showed that clients who received more positive social support had greater levels of life satisfaction. So in this current study, it can also be postulated that if a client has positive social support resulting in greater life satisfaction, maintenance of that satisfaction will then act as an incentive to seek help in times of need.

Cohen, Brissette, Skoner and Doyle (2000) discuss symbolic interactionist theory that is relevant to this study in that it supports the study hypothesis of social support having an influence over client help-seeking actions. They cite Thoits’ argument that the identities of individuals are tied to their social roles (Cohen, Brissette, Skoner & Doyle, 2000). Social roles are viewed as behavioral expectations constructed through social environments, a view that also resonates with Erikson’s psychosocial theory. For example, social role perceptions are created through interactions with various significant
others. So social roles are argued to have great pertinence to behavior in life. It follows that social support poses a powerful impact on an individual.

Interactionist theory "asserts that human beings interpret or define each other's actions instead of merely reacting" (Zastrow & Kirst-Ashman, 2001, p. 477). From this perspective as well, it can be assumed that individuals are socialized into reacting in certain ways to certain situations. This is found to be true in cross-cultural studies of sensitivities to certain life events and even physical gestures. Coupled with a systems perspective, socialization into various systems can mean a great degree of influence within them.

The above theories are most useful in supporting this study's core assumption that social support is an influential factor in human behavior, particularly, that of help-seeking and treatment compliance. They have backed past research included in this review, supporting a hypothesis that stronger social support, be it size of social networks, tangible, or perceived support, contributes to positive and effective treatment outcomes in the social work field. It was this study's intent and purpose to further examine such a link.
Summary

This chapter has provided a review of literature relevant to this study as determined by the researcher. Topics addressed included definitions and quantifications of social support, implications of social support for help-seeking behavior, and theories guiding conceptualization.
CHAPTER THREE
METHODS

Introduction

This chapter will present an overview of the methodology employed in this study as it examined the relationship between social support and treatment compliance. Study design will be described in detail, as well as sampling and procedures of data collection. In addition, the important ethical issue of protection of human subjects will be addressed, followed by a discussion of the types of data analysis that were used.

Study Design

This study explored the relationship between social support and treatment compliance among the mentally ill. It sought to provide evidence of a link between the strength of the social support system (both perceived and tangible) and its influence on a client's motivation to seek help and comply with treatment. This was achieved through the use of a quantitative study design. This was the method of choice as it was necessary to quantify the strength of social support systems for comparison to
treatment rates, and also to compare clients in the sample among themselves.

Both ordinal and interval levels of measure were used. Participants were first asked to complete a self-administered survey at the agency of focus during a predetermined amount of time. Then, based on the analysis of their responses, treatment compliance rates were determined.

Specifically, the research question was: Do stronger perceptions of social support and strength of social networks among clients have a positive influence on treatment compliance? This question involves social support as the independent variable and treatment compliance as the dependent variable. Two hypotheses are identified for this study. The first is that a positive correlation will exist between strong perceived social support and treatment compliance. The second is that a positive correlation will exist between tangible social support (represented by network size) and treatment compliance.

Some methodological limitations of this study include sample size and sample and data source. It is difficult to generalize findings to the larger population.
based on a limited sample size. The source of this study's sample and data was from a single agency, which is limiting in that variations in types of clients and levels of social support were not considered over different geographical and agency locations. One culture was dominant among clients at the agency, for example. Last, the diagnosis and severity of mental illness belonging to each client varied, which may have lead to disparity and inaccuracies in survey responses due to the potential mental handicap of each participant.

Sampling

The sampling method used was convenience sampling. Surveys were completed during a three-week period in order to obtain a sample of at least fifty participants. Selection criteria consisted of age and diagnosis limitations only. This study focused on individuals diagnosed with a mental illness who are above the age of eighteen. Sampling was also limited to mental health clients at a single psychiatric agency, and encompassed only those who were scheduled to receive treatment during a specific time period. Such a sample was desired to gain
Data from the variety of mental health clients served at this particular location.

Data Collection and Instruments

Data were collected from participants regarding both perceived social support and social network size. The Medical Outcomes Study (MOS) Social Support Survey (Sherbourne & Stewart, 1991) was used to measure the former, and the Social Network Index (Berkman & Syme, 1979) was used for the latter. (See Appendix C.) Both have been tested for validity and reliability through their use in several studies. The MOS Social Support Survey uses a five-point Likert-type scale that asks participants to express if they feel supported in certain situations. Response options range from "none of the time" to "all of the time" and are scored according to strength on an ordinal level of measurement. Responses are each coded with a numerical value (from 1-5) which were summed so a total score could be assigned to each participant for use in data analysis (possible scores range from 0-95). Some strengths of the survey are in its ability to capture an individual’s thoughts and feelings on the matter of social support within their life.
circumstances. Its weakness is that it is limited to assessing perceptions alone, which may not accurately reflect the resources available to that individual.

The Social Network Index measures variables on an interval level. Questions are designed to assess network size and strength, such as “How many children do you have?” Other questions are nominal, such as questions regarding marital status in which a number is assigned to answers such as “married” or “divorced.” Responses to these questions were recoded and summed in order to assign two individual scores for social network size and network diversity. This scale shows strength in providing actual, tangible numbers to indicate available social support. It is limited, however, in that a subject may not provide accurate answers to questions at all times. Also, even though a network size may be quite large, a subject may still perceive very little or no support and is unlikely to make use of what is available.

Both perceived social support and social network size (including network diversity) are the independent variables in this study. In addition, data was gathered regarding the dependent variable, treatment compliance, and demographics such as age, ethnicity, and gender.
These data were obtained through the inclusion of an additional section of questions in the survey, designed by the researcher. Descriptive statistics were used to present the additional data, and inferential statistics presented the association between the dependent and independent variables.

Procedures

Participation was solicited from clients at a private psychiatric practice who were scheduled to receive treatment between February 6, 2005 and February 26, 2005. All clients over the age of eighteen who attended appointments and were deemed competent to give informed consent were asked to complete a self-administered questionnaire within the office building once the meeting with their doctor was over. First the doctor, based on their current assessment of the client, let the researcher know if the client was mentally competent to give informed consent and able to complete the questionnaire with minimal risk of harm to their mental condition. If the researcher was granted clearance to approach the client, and the client agreed to participate, the questionnaire was completed in
approximately twenty minutes. Permission from the agency to allow such research was obtained in advance through written consent.

Participants received a statement of confidentiality and consent form including an introductory statement prior to their completion of the questionnaire. (See Appendix A.) A small reward/gift of a snack and beverage in gratitude for their time spent participating in this study was given at this time to act as further incentive for participation. The survey consisted of questions regarding perceived social support and network size. Upon completion, or when a participant decided to discontinue participation, they returned their surveys to the researcher by placing them in a sealed and unmarked box in exchange for a short debriefing statement. (See Appendix B.)

Protection of Human Subjects

The importance of the ethical consideration of confidentiality was asserted in the introductory statement of the consent agreement given to participants prior to completion of the survey. Anonymity was assured in the consent form as it instructed the participant to
indicate consent by checking the appropriate box instead of signing their name. Participant names were not otherwise requested during survey administration. The consent agreement included a statement indicating that treatment received at the agency would not be affected or modified in any way based on participation in the research study. They were also informed that participation was optional and refusal to answer certain survey questions based on comfort level was acceptable.

Upon completion of the survey, participants returned their forms by placing them in a sealed and unmarked box to further preserve anonymity. The participant was then provided with a debriefing statement thanking them for participation and offering further explanation as to the nature of the research. During the entire period of research data collection and analysis, all survey material and other data were kept locked at the home of the researcher. Access was limited to the researcher and research advisor alone. Upon completion of the project, all surveys and other data gathered were destroyed.
Data Analysis

This study employed quantitative analysis procedures to analyze its data. As stated, convenience sampling was used to gather survey data, as only clients scheduled for treatment during a specific time period were solicited for participation. Both descriptive and inferential statistics were used to analyze data collected. Descriptive statistics, such as frequency distributions, measures of central tendency and measures of variability, primarily applied to the presentation of treatment compliance rates and the tangible support system (network size) component of the research survey. Inferential statistics offered insight to the relationship between social support and treatment compliance. This included the use of t-tests and Pearson’s r to determine the strength of the relationship.

Measurements consisted of nominal, ordinal, and interval levels. Nominal information was requested, such as gender and race, at the beginning of the survey. Ordinal information was recorded in the perceived social support section of the survey in which a participant indicated their level of agreement with a particular
statement. Interval measures were used to determine and compare social network sizes.

Summary

This chapter provided a detailed outline of all methods and procedures that were used to accomplish data collection for this study. All pertinent subjects have been addressed: study design and rationale, sampling and justification, data collection and instruments, procedures, protection of human subjects, and data analysis methods. It is through the use of such methods that this study effectively explored the relationship between social support and treatment compliance among mental health clients.
CHAPTER FOUR

RESULTS

Introduction

Chapter Four contains the presentation of study findings. The data that have been collected for statistical purposes that details the demographics of the sample population will be presented first (e.g., gender, age, ethnic background). It is followed by a report of survey results regarding social network size, network diversity, and perceived social support, with appropriate statistical testing included.

Presentation of the Findings

Participants consisted of 50 patients of a private, outpatient psychiatric facility. Twenty-four (48%) were female and 26 (52%). Ages ranged from 19 to 67, with a mean age of 35.86 (SD = 13.419). The majority (42) of participants identified as Hispanic/Latino, four identified as Non-Hispanic White, three identified as African American, and 1 indicated the "other" category. Thirty-three participants indicated current employment, and the remaining 17 indicated no current employment. Twenty-seven participants indicated they were currently
married and living together, or were living with someone in a marital-like relationship. Ten participants indicated they had never married and never lived with someone in a marital-like relationship. Nine participants indicated they were divorced or formerly lived with someone in a marital-like relationship. Three indicated they were separated, and 1 was widowed.

Almost half of the participants (23) indicated their physical health was good. Thirteen participants indicated their physical health was very good, 10 participants indicated fair, and 4 participants indicated an excellent physical health level. Twenty participants indicated their mental health level as good, 16 participants indicated that their mental health was fair, 9 indicated very good, 4 indicated excellent, and 1 indicated poor.

Participants were asked to recall the number of appointments scheduled with any of their doctors within the past six months. The majority of participants (27) indicated 0-3 appointments scheduled. Eighteen participants indicated 4-7 appointments, 3 participants indicated 8-11 appointments, and 2 participants indicated 12 or more appointments. Of these appointments, 44 participants indicated having to miss or reschedule 0-3
appointments, and the remaining 6 participants indicated 4-7 appointments missed or rescheduled.

Participants were asked to indicate their perceived levels of social support according to 19 different scenarios. Table 1 displays the valid percentages for answers to each scenario. The answers were then summed and recoded into a single score for total perceived social support. The highest percentage of participants (22.4%) received a total score of 95, the highest possible. The next most frequent scores were 41 (6.1%), 54 (6.1%), and 85 (6.1%). Scores of 57, 74, 76, 82, 84, and 92 received a percentage of 4.1% participants each, and all other scores were at 2.0% or less. Figure 1 shows a histogram of the breakdown of perceived social support scores according to the frequencies with which they occur.

Tangible social support was measured by asking participants to indicate how many other individuals they talk to at least once every two weeks according to certain relationships or social network groups. Table 2 displays results by valid percent according to how many contacts each participant made with different social groups. Select variables were then recoded and used to
form sums which became the additional variables of network size (or network number) and network diversity. 

Network size is defined as the total number of people with whom the participant has contact at least once every two weeks (determined by summing the number of people contacted within the groups of: marital-status, children, parents, in-laws, other relatives, friends, religious group members, fellow students, supervised employees, other coworkers, neighbors, volunteer coworkers and other groups). The most frequently occurring network sizes are 13 (10%), 22 (10%), 10 (08%), 21 (06%), 17 (06%), 14 (06%), and 7 (06%). Figure 2 displays a histogram of the breakdown of network size scores according to the frequencies in which they occur.

Network diversity is defined as the number of social roles in which the participant has contact at least once every two weeks (determined by summing the number of roles within which contact is indicated in the same social group categories as social network size, 13 social roles is the maximum score possible). The most frequently occurring score of network diversity is 7 (24%), followed by 5 (18%), 6 (14%), and 4 (12%). Figure 3 displays a
histogram of the breakdown of network diversity scores according to the frequencies in which they occur.

Correlations were run for all demographic variables (age, gender, ethnicity, employment status, marital-status, physical health, mental health, scheduled appointments, missed or rescheduled appointments) and the measures of network diversity, network number, and perceived social support levels. The following correlations were found to be statistically significant:

- Age and network diversity \([r = .321, p = .023]\),
- Physical health and mental health \([r = .671, p = .000]\),
- Physical health and scheduled appointments \([r = .380, p = .006]\),
- Mental health and scheduled appointments \([r = .501, p = .000]\),
- Mental health and missed/rescheduled appointments \([r = .446, p = .001]\),
- Mental health and perceived social support \([r = -.370, p = .009]\),
- Scheduled appointments and missed/rescheduled appointments \([r = .429, p = .002]\),
- Missed/rescheduled appointments and network diversity \([r = -.334, p = .018]\),
- Missed/rescheduled appointments and network number \([r = -.420, p = .002]\),
- Missed/rescheduled appointments and perceived social support \([r = -.557, p = .000]\),
- Network diversity and network number \([r = .746, p = .000]\),
network diversity and perceived social support 
[r = .368, p = .009], and network number and perceived social support [r = .584, p = .000].

Independent-samples t tests were conducted on nine statistically significant correlations which included nominal variables. The first t test was conducted to determine if females are generally in worse physical health than males. The test was significant (t = 2.51, df = 48, p < .05), showing that females (M = 3.08) were significantly less physically healthy than males (M = 2.50). The next t test was conducted to determine if females are more likely to have a greater number of health related appointments than males. This t test was also significant (t = 2.51, df = 48, p < .05), showing that females (M = 1.88) are likely to have a greater number of appointments than males (M = 1.35).

For the third independent-samples t test, ethnicities were recoded into two classes, Hispanic/Latino and other. The t test was conducted to determine if non-Hispanic/Latinos were more likely to have to miss or reschedule appointments than Hispanic/Latinos. The results were significant (t = -2.525, df = 48, p < .05), showing that other ethnic
groups (M = 1.38) were more likely to have to miss or reschedule a health related appointment than Hispanic/Latinos (M = 1.07). Fourth, a t test was conducted to determine if unemployed individuals are more likely to miss or reschedule health related appointments than employed individuals. The results were significant (t = -2.886, df = 48, p < .05), showing that unemployed individuals (M = 1.29) are more likely to miss or reschedule health related appointments than employed (M = 1.03) individuals.

The fifth t test was conducted to determine if employed individuals generally have greater network diversity than the unemployed. The results were significant (t = 3.63, df = 48, p < .05), showing that employed individuals (M = 6.9) are likely to have greater network diversity than unemployed (M = 5) individuals. The sixth t test was conducted to determine if employed individuals generally have a larger network size (network number) than the unemployed. The results were significant (t = 3.61, df = 48, p < .05), showing that employed individuals (M = 18.72) are likely to have a larger network than unemployed (M = 11.70) individuals.
For the seventh independent-samples t test, the marital status variable was recoded into two classes, married and non-married. The test was conducted to determine if married individuals generally have a larger network size than the unmarried. The results were not significant \( (t = -1.29, df = 48, p = .203, p > .05) \), so marital-status has no statistically significant relationship to network size. The eighth t test was conducted using the same recoded marital-status variable to determine if married individuals generally have greater network diversity than the unmarried. The results were significant \( (t = -4.39, df = 48, p < .05) \), showing that married individuals \( (M = 7.22) \) tend to have greater network diversity than unmarried \( (M = 5.13) \) individuals. The recoded marital-status variable was used a third time for the ninth t test, conducted to determine if married individuals generally have a higher level of perceived social support than the unmarried. The results were not significant \( (t = -1.29, df = 47, p = .202, p > .05) \), so marital-status has no statistically significant relationship to levels of perceived social support.
Summary

The content of Chapter Four consists of a detailed description of the results determined in this study, which will be used to guide discussion in Chapter Five. Demographic data are presented, as well as frequency data regarding the variables of perceived and tangible social support. Significant findings are included, identified through a correlation analysis (Pearson’s r). Independent-samples t tests were conducted to further analyze significant findings which contained nominal variables.
CHAPTER FIVE

DISCUSSION

Introduction

Chapter Five will contain a discussion of the study results presented in Chapter Four, including the interpretation of relevant graphs designed to encompass data that is most closely associated with the research hypothesis. Limitations of the research method will then receive comment, and recommendations for social work practice, policy and research will be made. Finally, conclusions will be made regarding the research hypothesis and the study in its entirety.

Discussion

The main hypothesis of this study was that the independent variable of social support (perceived or tangible) has a positive correlation with the dependent variable of treatment seeking and compliance. That is, the higher the degree of social support available and utilized by a particular client, the more likely the client will seek out and comply with treatment when it is needed. Though there were many significant findings among the analyzed data of this study, the results most closely
associated with the research hypothesis were those correlations involving missed or rescheduled appointments (indicating low treatment compliance), network diversity, network size, and perceived social support levels.

A negative correlation was found between network diversity and missed or rescheduled appointments. The correlation reports that as network diversity increases, the number of missed or rescheduled appointments decreases. This finding suggests that the more social roles an individual may have through activities in different social circles (i.e. as a parent, as a child, as a friend), the less likely that individual will be to fail to attend a medical appointment. It supports the study hypothesis that as social support (measured by network diversity) increases, the likelihood of complying with treatment increases. Figure 4 displays a bar graph of the mean scores for network diversity (netdiversity) categorized by scheduled appointments and split to include missed or rescheduled appointments. The average network diversity scores for those with a greater number of missed appointments (4-7) can be seen to be lower than those with less (0-3) missed appointments.
An even stronger negative correlation exists in the collected data between network size and missed or rescheduled appointments. As with network diversity, this correlation reports that as network size increases, the number of missed or rescheduled appointments decreases. So the larger the number of people within an individual's social network, the less likely that person is to fail to attend a medical appointment. The study hypothesis is also supported here, as social support (measured by network size) increases result in a treatment compliance increase. Figure 5 illustrates a bar graph of the mean scores of network size (netnumber) categorized by scheduled appointments and split to include missed or rescheduled appointments. Here also, the average network size scores for those with a greater number of missed appointments (4-7) can be seen to be lower than those with less (0-3) missed appointments.

A final strong correlation of importance to the study hypothesis is found between the level of perceived social support and missed or rescheduled appointments. As the level of perceived social support increases, the number of missed or rescheduled appointments decreases. This is interpreted to mean that the more an individual
feels a sense of support from others, regardless of whether it is real or imagined, the less likely that individual will be to fail to attend a medical appointment. So the individual is more likely to comply with treatment if the social support (measured by perceived levels) is increased, and again the research hypothesis is supported. Figure 6 illustrates a bar graph of the mean scores of perceived social support (perceived) categorized by scheduled appointments and split to include missed or rescheduled appointments. Yet again, the average perceived support scores for those with a greater number of missed appointments (4-7) can be seen to be lower than those with less (0-3) missed appointments.

An interesting point of contention discussed previously in Chapter Two of this study had to do with the definition and quantification of social support. Specifically, should social support be measured according to tangible systems or individual perceptions? Due to the differing view points offered throughout the literature reviewed for this study, it was determined that both would be measured in an attempt to get as accurate a result as possible.
What is interesting and very noteworthy about the data is that the three measures (network size, network diversity, and perceived social support) are shown to be interrelated in a significant manner. Strong positive correlations exist between network diversity and network size, network diversity and perceived support, and network size and perceived support. So within each pair, as one increases, the other increases as well, suggesting that any measure of social support has a significant possibility of ultimate accuracy, regardless if it is tangible or perceived.

Limitations

It is important to note certain circumstances that may impose limitations on the interpretation of the data analysis. For example, it is to be acknowledged that regarding the social network size variable, the data results only apply to the social network size as it consists of those who are in regular contact with the participant, not the total number of people with which one is acquainted. Though results were significant, they are not as easily generalized to take into account the
number of individuals whom a participant may have spoken to once per month, for example.

Likewise, regarding social network diversity, survey data only considered up to 13 group types in which a participant may have a role. Though participants were asked to consider and indicate the number of contacts within additional groups of involvement, the additional group types were not added to the possible total, and most appeared to opt out of answering the question altogether. So interpretation of the result cannot assume that all or even most social network groups have been considered.

Perceived social support is always contained within the limitations of the participant’s individual feelings, none of which have ever been accurately conceptualized. Answering “some of the time” may mean two days out of the week to one, while it means five hours out of the day to another. Without these internal definitions to consider, quantitative data is likely flawed. In addition, since the sample consisted of participants with varying types and degrees of mental illness, additional constraints are placed on participant interpretation of the survey questions.
As discussed in Chapter Three, methodological limitations of the study include sample size, and sample source. The sample size was 50 and not spread over different geographical locations. The various diagnoses of the participants were unknown and may have affected participant answers. A manic individual may assert that they are in excellent mental health regardless of evidence to the contrary, for example. The sample consisted of a predominantly younger population \( (M = 35.86, \ SD = 13.419, \ Mode = 26) \), perhaps due to the fact that the agency from which the sample was gathered serves a large population of monolingual, Spanish speaking clients. The younger clients, depending upon the generation, were more likely to not only speak, but read and write in the English language.

Finally, because the sample reflected that the population served at the agency was predominantly Hispanic/Latino (84\% of participants identified as Hispanic/Latino), ethnicity may have had an impact on study results. An independent samples t test was conducted between Hispanics/Latinos and other ethnicities and missed or rescheduled appointments. The t test showed a significant result, indicating that Hispanic/Latinos
were less likely to have to miss or reschedule an appointment than Non-Hispanic/Latinos. So perhaps cultural influence on levels of social support limits this study’s ability to generalize findings to society as a whole.

Recommendations for Social Work Practice, Policy and Research

Since the findings of this study support the general hypothesis that social support does influence treatment seeking and compliance, certain implications for social work practice, policy and research can be identified. Findings suggest that social support is a powerful, naturally occurring resource that should be tapped into by social service professionals as part of an effective treatment plan. It is the researcher’s recommendation to practitioners that the factor of social support be given greater consideration in treatment planning. This should be done both in the defensive and offensive, defensive being the acknowledgement and strengthening of what already exists, and offensive being the implementation of new support relationships (i.e., referral to groups).

Regarding policy and research, it is recommended that future studies be focused on translating levels of
social support (of any definition) into economic terms in order to quantify the savings that may occur in identified areas of treatment considerations. Once this is achieved, the information may then be used by practitioners to format a plan for cost-effective treatment planning.

Conclusions

Chapter Five has discussed and made inferences about the results of the data analysis associated with this investigative study. Results indicated that all measures of social support used held significant amounts of influence on treatment compliance which ultimately supported the research hypothesis. Study findings strongly suggest that the topic of social support is well worth pursuing in future studies on the subject of how practitioners might harness its strength as a positive influential factor in human behavior.
APPENDIX A

INFORMED CONSENT
INFORMED CONSENT

This study in which you are being asked to participate is designed to investigate social support (the extent to which you feel supported by others). This study is being conducted by Liana Gonzalez, a graduate student under the supervision of Dr. Rosemary McCaslin, professor of social work at California State University, San Bernardino. This study has been approved by the Institutional Review Board, California State University, San Bernardino.

In this study you will be asked some questions about how supported you feel by others and how many people you keep in contact with. The questionnaire should take about 15 to twenty minutes to complete. All of your answers will be kept confidential by the researcher. Your name will not be reported with your answers, and the final information will be reported in group form only. You may review the group results of this study upon completion after June 18, 2005 at: Pfau Library, California State University, San Bernardino.

Your participation in this study is totally voluntary, and will not affect the treatment you receive from Advanced Psychiatric Group today or at any point in the future. This study should not harm you in any way, and though there are no immediate benefits to you, in the future the study may help professionals serve people better. You are free not to answer any questions and may stop participating at any time during this study with no problems. When you are done with the questionnaire, you will receive a debriefing statement describing more about the study. We ask that you not discuss this study with other patients to make sure that the answers are original each time.

If you have any questions or concerns about this study, please feel free to contact Dr. Rosemary McCaslin at (909)880-5507.

By placing a check mark in the box below, I acknowledge that I have been informed of, and that I understand the nature and purpose of this study, and I freely consent to participate. I also acknowledge that I am at least 18 years of age.

Place a check mark here □  Today's date: ____________________
APPENDIX B

DEBRIEFING STATEMENT
DEBRIEFING STATEMENT

Study of Social Support
Debriefing Statement

This study you have just completed was designed to examine how supported you feel by others. In this study, the researcher will examine how much our social support systems (i.e. family, friends, significant others, etc.) help us to get help when we need it. The first set of questions was meant to assess how you feel about the social support in your own life. The second set of questions was meant to get an idea of how many people you keep in contact with.

Thank you for your participation and for not discussing the contents of the questionnaire with other patients. If you have any questions about the study, please feel free to contact Dr. Rosemary McCaslin at (909)880-5507. If you would like to obtain a copy of the group results of this study, please contact the Pfau Library at California State University, San Bernardino.
APPENDIX C

QUESTIONNAIRE
QUESTIONNAIRE

Instructions: This questionnaire consists of three sections and should take about 15-20 minutes to complete. Each section is headed with additional instructions and explanation. Please read and answer the questions as completely and honestly as possible.

First are some questions to get to know you better. These questions are optional and will only be used for statistical purposes. Please indicate your answers by circling the appropriate choice or by writing in the spaces provided:

1. What is your age? ______________

2. What is your gender? 1. Female 2. Male

3. What is your ethnicity?
   4. Hispanic/Latino 5. Other (please list): ______________

4. How would you rate your physical health?
   1. Excellent 2. Very good 3. Good
   4. Fair 5. Poor

5. How would you rate your mental health?
   1. Excellent 2. Very good 3. Good
   4. Fair 5. Poor

6. How many appointments with any of your doctors have you attended in the past six months?
   1. 0-3 2. 4-7 3. 8-11 4. 12+

7. Of all doctor’s appointments you were scheduled to attend in the past six months, how many have you had to miss or reschedule?
   1. 0-3 2. 4-7 3. 8-11 4. 12+

8. Are you currently employed?
   1. Yes 2. No

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This next set of questions is concerned with how many people you see or talk to on a regular basis including family, friends, workmates, neighbors, etc. Please read and answer each question carefully. Answer follow-up questions where appropriate.

1. Which of the following best describes your marital status?
   ___  (1) currently married & living together, or living with someone in a marital-like relationship
   ___  (2) never married & never lived with someone in a marital-like relationship
   ___  (3) separated
   ___  (4) divorced or formerly lived with someone in a marital-like relationship
   ___  (5) widowed

2. How many children do you have? (If you don’t have any children, check ‘0’ and skip to question 3.)
   ___ 0 ___ 1 ___ 2 ___ 3 ___ 4 ___ 5 ___ 6 ___ 7 or more

2a. How many of your children do you see or talk to on the phone at least once every 2 weeks?
   ___ 0 ___ 1 ___ 2 ___ 3 ___ 4 ___ 5 ___ 6 ___ 7 or more

3. Are either of your parents living? (If neither is living, check ‘0’ and skip to question 4.)
   ___(0) neither   ___(1) mother only   ___(2) father only   ___(3) both

3a. Do you see or talk on the phone to either of your parents at least once every 2 weeks?
   ___(0) neither   ___(1) mother only   ___(2) father only   ___(3) both

4. Are either of your in-laws (or partner’s parents) living? (If you have none, check the appropriate space and skip to question 5.)
   ___(0) neither   ___(1) mother only   ___(2) father only   ___(3) both
   ___(4) N/A
4a. Do you see or talk on the phone to either of your partner's parents at least once every 2 weeks?
   ____ (0) neither  ____ (1) mother only  ____ (2) father only  ____ (3) both

5. How many other relatives (other than your spouse, parents & children) do you feel close to? (If '0', check that space and skip to question 6.)
   ____ 0  ____ 1  ____ 2  ____ 3  ____ 4  ____ 5  ____ 6  ____ 7 or more

5a. How many of these relatives do you see or talk to on the phone at least once every 2 weeks?
   ____ 0  ____ 1  ____ 2  ____ 3  ____ 4  ____ 5  ____ 6  ____ 7 or more

6. How many close friends do you have? (meaning people that you feel at ease with, can talk to about private matters, and can call on for help)
   ____ 0  ____ 1  ____ 2  ____ 3  ____ 4  ____ 5  ____ 6  ____ 7 or more

6a. How many of these friends do you see or talk to at least once every 2 weeks?
   ____ 0  ____ 1  ____ 2  ____ 3  ____ 4  ____ 5  ____ 6  ____ 7 or more

7. Do you belong to a church, temple, or other religious group? (If not, check 'no' and skip to question 8.)
   _______ Yes _________ No

7a. How many members of your church or religious group do you talk to at least once every 2 weeks? (This includes at group meetings and services.)
   ____ 0  ____ 1  ____ 2  ____ 3  ____ 4  ____ 5  ____ 6  ____ 7 or more

8. Do you attend any classes (school, university, technical training, or adult education) on a regular basis? (If not, check 'no' and skip to question 9.)
   _______ Yes _________ No

8a. How many fellow students or teachers do you talk to at least once every 2 weeks? (This includes at class meetings.)
   ____ 0  ____ 1  ____ 2  ____ 3  ____ 4  ____ 5  ____ 6  ____ 7 or more
9. Are you currently employed either full or part-time? (If not, check 'no' and skip to question 10.)
   ___ (0) no  ___ (1) yes, self-employed  ___ (2) yes, employed by others

9a. How many people do you supervise?
   ___ 0  ___ 1  ___ 2  ___ 3  ___ 4  ___ 5  ___ 6  ___ 7 or more

9b. How many people at work (other than those you supervise) do you talk to at least once every 2 weeks?
   ___ 0  ___ 1  ___ 2  ___ 3  ___ 4  ___ 5  ___ 6  ___ 7 or more

10. How many of your neighbors do you visit or talk to at least once every 2 weeks?
    ___ 0  ___ 1  ___ 2  ___ 3  ___ 4  ___ 5  ___ 6  ___ 7 or more

11. Are you currently involved in regular volunteer work? (If not, check 'no' and skip to question 12.)
    ______ Yes  ______ No

11a. How many people involved in this volunteer work do you talk to about volunteering-related issues at least once every 2 weeks?
    ___ 0  ___ 1  ___ 2  ___ 3  ___ 4  ___ 5  ___ 6  ___ 7 or more

12. Do you belong to any groups in which you talk to one or more members of the group about group-related issues at least once every 2 weeks? Examples include social clubs, recreational groups, trade unions, commercial groups, professional organizations, groups concerned with children like the PTA or Boy Scouts, groups concerned with community service, etc. (If you don't belong to any such groups, check 'no' and skip the section below.)
    ______ Yes  ______ No
Consider those groups in which you talk to a fellow group member at least once every 2 weeks. Please provide the following information for each such group: the name or type of group and the total number of members in that group that you talk to at least once every 2 weeks.

1. 

2. 

3. 

4. 

5. 

6. 

Last are some questions about the support that is available to you. First, please answer this question: About how many close friends and close relatives do you have (people you feel at ease with and can talk to about what is on your mind)? Write your answer here, in number form: 

People sometimes look to others for companionship, assistance, or other types of support. How often is each of the following kinds of support available to you if you need it (please circle your response on the next page)?
<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1. Someone to help you if you were confined to bed</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Someone you can count on to listen to you when you need to talk</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Someone to give you good advice about a crisis</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Someone to take you to the doctor if you needed it</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Someone who shows you love and affection</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. Someone to have a good time with</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. Someone to give you information to help you understand a situation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. Someone to confide in or talk to about yourself or your problems</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. Someone who hugs you</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. Someone to get together with for relaxation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11. Someone to prepare your meals if you were unable to do it yourself</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12. Someone whose advice you really want</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13. Someone to do things with to help you get your mind off things</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>14. Someone to help with daily chores if you were sick</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>15. Someone to share your most private worries and fears with</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>16. Someone to turn to for suggestions about how to deal with a personal problem</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17. Someone to do something enjoyable with</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>18. Someone who understands your problems</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>19. Someone to love and make you feel wanted</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

That’s it, you’re done! Thank you for your time, please return this form to the front desk in exchange for a debriefing statement.
APPENDIX D

TABLES
Table 1. Perceived Social Support

<table>
<thead>
<tr>
<th>Table shows valid percent of participant answers to survey questions regarding perceived social support</th>
<th>None of the time</th>
<th>Little of the time</th>
<th>Some of the time</th>
<th>Most of the time</th>
<th>All of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Someone to help if you were confined to bed</td>
<td>2.0</td>
<td>8.2</td>
<td>20.4</td>
<td>28.6</td>
<td>40.8</td>
</tr>
<tr>
<td>Someone you can count on to listen to you</td>
<td>6.1</td>
<td>8.2</td>
<td>16.3</td>
<td>20.4</td>
<td>49.0</td>
</tr>
<tr>
<td>Someone to give you good advice about a crisis</td>
<td>16.3</td>
<td>16.3</td>
<td>26.5</td>
<td>40.8</td>
<td></td>
</tr>
<tr>
<td>Someone to take you to the doctor if you needed it</td>
<td>2.0</td>
<td>8.2</td>
<td>18.4</td>
<td>28.6</td>
<td>42.9</td>
</tr>
<tr>
<td>Someone who shows you love and affection</td>
<td>10.2</td>
<td>22.4</td>
<td>14.3</td>
<td>53.1</td>
<td></td>
</tr>
<tr>
<td>Someone to have a good time with</td>
<td>4.1</td>
<td>6.1</td>
<td>18.4</td>
<td>22.4</td>
<td>49.0</td>
</tr>
<tr>
<td>Someone to give you information to help you understand</td>
<td>2.0</td>
<td>10.2</td>
<td>20.4</td>
<td>30.6</td>
<td>36.7</td>
</tr>
<tr>
<td>Someone to confide in or talk to</td>
<td>4.1</td>
<td>8.2</td>
<td>30.6</td>
<td>12.2</td>
<td>44.9</td>
</tr>
<tr>
<td>Someone who hugs you</td>
<td>2.0</td>
<td>12.2</td>
<td>10.2</td>
<td>20.4</td>
<td>55.1</td>
</tr>
<tr>
<td>Someone to get together with for relaxation</td>
<td>2.0</td>
<td></td>
<td>26.5</td>
<td>22.4</td>
<td>49.0</td>
</tr>
<tr>
<td>Someone to prepare your meals if you were unable</td>
<td>8.2</td>
<td>22.4</td>
<td>28.6</td>
<td>40.8</td>
<td></td>
</tr>
<tr>
<td>Someone whose advice you really want</td>
<td>2.0</td>
<td>12.2</td>
<td>22.4</td>
<td>30.6</td>
<td>32.7</td>
</tr>
<tr>
<td>Someone to do things with to get your mind off things</td>
<td>2.0</td>
<td>4.1</td>
<td>18.4</td>
<td>30.6</td>
<td>44.9</td>
</tr>
<tr>
<td>Someone to help with daily chores if you were sick</td>
<td>2.0</td>
<td>18.4</td>
<td>24.5</td>
<td>26.5</td>
<td>28.6</td>
</tr>
<tr>
<td>Someone to share your most private worries with</td>
<td>8.2</td>
<td>8.2</td>
<td>24.5</td>
<td>18.4</td>
<td>40.8</td>
</tr>
<tr>
<td>Someone to turn to for help with a personal problem</td>
<td>10.2</td>
<td>26.5</td>
<td>20.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Someone to do something enjoyable with</td>
<td>8.2</td>
<td>16.3</td>
<td>18.4</td>
<td>57.1</td>
<td></td>
</tr>
<tr>
<td>Someone who understands your problems</td>
<td>12.2</td>
<td>8.2</td>
<td>28.6</td>
<td>14.3</td>
<td>36.7</td>
</tr>
<tr>
<td>Someone to love and make you feel wanted</td>
<td>2.0</td>
<td>14.3</td>
<td>14.3</td>
<td>18.4</td>
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</table>
Table 2. Tangible Social Support

<table>
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<tr>
<th>Table shows valid percent of participants who indicated the number of individuals contacted at least once every two weeks within each social group</th>
<th>0 (%)</th>
<th>1 (%)</th>
<th>2 (%)</th>
<th>3 (%)</th>
<th>4 (%)</th>
<th>5 (%)</th>
<th>6 (%)</th>
<th>7+ (%)</th>
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<tr>
<td>Marital-status</td>
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<td>52.9</td>
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<td></td>
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<tr>
<td>Children</td>
<td>40.0</td>
<td>22.0</td>
<td>12.0</td>
<td>18.0</td>
<td>2.0</td>
<td>4.0</td>
<td>2.0</td>
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<tr>
<td>Parents</td>
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<td>40.4</td>
<td>55.3</td>
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<td></td>
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<td></td>
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<tr>
<td>In-laws</td>
<td>42.9</td>
<td>25.0</td>
<td>32.1</td>
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<td>Relatives</td>
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<td>30.0</td>
<td>20.0</td>
<td>6.0</td>
<td>4.0</td>
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<td>14.0</td>
</tr>
<tr>
<td>Friends</td>
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<td>10.0</td>
<td>34.0</td>
<td>18.0</td>
<td>8.0</td>
<td>4.0</td>
<td>8.0</td>
<td>6.0</td>
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<td>Religious Group Members</td>
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<td>12.0</td>
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<td>6.0</td>
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<tr>
<td>Fellow Students</td>
<td>74.0</td>
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<td>2.0</td>
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<td>4.0</td>
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<td>2.0</td>
<td>4.0</td>
<td>12.0</td>
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<td>Other Coworkers</td>
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<td>12.0</td>
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<td>6.0</td>
<td>6.0</td>
<td>2.0</td>
<td>16.0</td>
</tr>
<tr>
<td>Neighbors</td>
<td>54.0</td>
<td>20.0</td>
<td>24.0</td>
<td>2.0</td>
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<td></td>
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<td>Volunteer Coworkers</td>
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<td>6.0</td>
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<td>2.0</td>
<td>2.0</td>
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<td></td>
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<tr>
<td>Other Group Members</td>
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<td>2.0</td>
<td>2.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX E

FIGURES
Figure 1. Histogram of Perceived Social Support Scores

Mean = 75.2041
Std. Dev. = 17.97913
N = 49
Figure 2. Histogram of Social Network Size Scores

Mean = 16.34
Std. Dev. = 7.26639
N = 50
Figure 3. Histogram of Social Network Diversity Scores

Mean = 6.26
Std. Dev. = 1.96718
N = 50
Figure 4. Bar Graph of Network Diversity in relation to Scheduled and Rescheduled/Missed Appointments
Figure 5. Bar Graph of Network Size in relation to Scheduled and Rescheduled/Missed Appointments
Figure 6. Bar Graph of Perceived Social Support in relation to Scheduled and Rescheduled/Missed Appointments
REFERENCES


