SOCIAL NETWORK CONFLICT AND DEPRESSION AMONG RURAL ELDERLY

by

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ABSTRACT

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This study sought to expand on previous research regarding perceived adequacy of social support networks and depression among rural elderly from west central Wisconsin. This research integrated information across three data collections utilizing the OARS, SNQ, NSE, and CES-D to complete an exploratory regression analyses of conflict with friends, conflict with family, demographic information, and depression among 30 rural elderly.

Analysis indicated four variables (DEPRESS2, DEPRESS1, CONFRN3 and CONFRN2) met the criteria for strong predictors of depressive symptoms in the final follow-up testing. Conflict with family was best predicted by previous conflict with friends (CONFRN2). The implications of the relationship of depressive symptomology and conflict within social support networks may have to future systemic discord and possible treatment implications are also discussed.

DEDICATION

This thesis is dedicated

to the

memory of my loving mother

whom left this realm October 24, 1998.

C. Virginia Poff

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I would like to express appreciation to my Thesis Advisor, Professor Charles Barnard, Professor John Williams, Professor Bruce Kuehl, and Lecturer Brier Miller-Minor for their guidance and support during my graduate education. Each has guided me through the demands of the program and helped with numerous life transitions I have faced in the last two years.

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CHAPTER ONE

Introduction

Social support networks are widely believed to have a positive effect on well being and mental health, yet relatively little research has examined the inter-relationship of depressive symptomology and conflict within social support networks. The reader will be afforded working definitions of social support networks, depressive symptomology, review of current literature, current demographic trends regarding aging and presented with possible future avenues to enhance mental health well being in the rural aging population.

Social Support Networks:

Researchers from the disciplines of psychology, sociology, biology, anthropology, ethnology, and economics have added to existing literature that recognizes the theoretical and practical importance of studying social support networks and the possible linkages to systemic and individual wellness among all ages, genders, and cultural groups. The elderly population is rapidly increasing, so too is the call for specific research aimed at analyzing elderly social support networks. With such research, the relationships of social support networks on mental health and well being in the aging population may be uncovered.

In order to define social support networks, one must look from a historical perspective. Parson (1968) attributes Emile Durkheim through the Social Control Theory, as the first person to actively present social support as an important implication to evaluating life satisfaction in a societal system. Parson stated that Durkheim's theory inferred that societal change influences structure, content, and availability of support

systems. These societal support systems were thought to be controlled by geographic and environmental causality. Later that year, Lowenthal and Haven (1968) reported depression in old age is less frequent when the elder has adequate social support. The Lowenthal and Haven (1968) study did not differentiate between familial and friendship based social support nor, did they expound on other negative effects of social support. Hooyman and Kiyak (1988) the fields of cultural anthropology and social psychology provided ethnographic evidence that social support networks have existed since the formation of human societies. Social support network research has grown in recent decades across a variety of disciplines. Researchers have added a small body of literature that includes research correlating the perceived adequate social support networks and psychical health.

Numerous studies of social support literature emphasized the positive or buffering effect that social supports have on stress (e.g., Cohen & Will, 1985; Cassel, 1976; Berkman & Syme, 1979; Cutrona, 1986; Devons, 1996). Cohen and Will (1985) reported social support networks improve one's over all well being even in the absence of stress. Until recently, social support networks were not compartmentalized. Van Eilligen (1989) detailed network functioning among rural poor elderly. Both familial and non-familial networks were reported to be helpful. The degree of helpfulness was dependent on the size and characteristic makeup of members in these networks. He did not, similar to other researchers, report any negative aspects of these networks.

Other researchers have reported both positive and problematic exchanges can occur within social support networks (e.g., Foire, Becker, & Coppel, 1983; Rook, 1984; Wiseman, 1986; Pagel, et.al., 1987; Milanesi, 1991; Davis, 1997; Milanesi, Tobin &

Davis, 1999; Hagerty & Williams, 1999; Nezlek, Hampton, & Shean, 2000). This small body of literature implies future foci of research not only report the actual number of members in the network, but also, assess the perceived satisfaction of social support networks.

The working definition utilized in this study is an elaborated form of the societal norm of social support networks. Society seems to contend that a support network is a group of people a person can confide in, communicate well with on a regular basis, and is geographically close. Maddox and colleagues (1995) report that support networks are primary groups that elders depend on to supply them with companionship, comrades, and act as confidants in times of stress or during life transitions. Further, conflict in these networks was mentioned regarding health decline. These networks can consist of friends or family and are seen as fluid (changing) and self-chosen. Availability of social networks was seen to be of little importance from a systemic perspective. In order to understand the relevance that social support networks may have on well being, information regarding demographic trends follows.

Demographics of Aging Population

The aging population is increasing due in part to progressive advancement in the medical field and overall fertility decline (Waters & Goodman, 1990). Waters and Goodman (1990) reported that in 1988, adults' ages 65 years and older made up 12 percent of the population in the United States. The projected percentage of United States population in this age category will increase to 22 percent by the year 2030. Waters and Goodman (1990) further speculate on the inter-relationship of health care services, financial resources, intergenerational relationships, distance of familial support,

geographic mobility, educational levels, and general health issues. These authors found that each of these factors can act to hinder adaptation to transitions across life-span development. However, non-familial support networks were not mentioned in their review.

In addition to the 'graying' of America, due in part to access to transportation venues and technology, geographic mobility within all age categories has shifted. Elders are not migrating as quickly to warmer climates and young adults are increasingly more mobile. The demographic information reported in the Wisconsin Blue Ribbon Commission (1996) highlighted the trends of support network relocation and stagnation of elderly movement. More elders are staying in generational family owned residences.

Depression

Studies in the United States have shown that at any given time, about 5 percent of the population can be diagnosed as having clinical depression. Clinical depression is the most commonly diagnosed mental illness and between 10 – 25 percent of Americans will experience a clinical depression at some point in life. Once diagnosed with this illness, an average of five episodes can follow over the course of one's lifetime. The distinction between a clinically depressed person and one that has depressive symptomology is normally differentiated by the number of symptoms one has and the duration a person has these symptoms (see American Psychiatric Association, 1984, DSM IV for the complete diagnostic protocol).

Campbell (1996) defines depression as a medical 'syndrome.' He explained this 'syndrome' as an affliction that displays a loss of interest or pleasure one once held, a decrease in or agitation of psychomotor movement(s), change in normal mood tone,

diminished cognitive ability, lack of energy, amenorrhea problems, suicidal ideations, loss of appetite, changes in weight, and constipation. Additional symptoms have been added by other researchers: anxiety, hopelessness (Beck, 1967), dry mouth, nausea, diarrhea, and conflicts within social networks (Maddox, Atchley, Evans, Finch, Hultsch, Kane, Mezey, Siegler, & Sussman, 1995; Miller, 1995) as correlated symptoms of depression. The Concise Guide to Geriatric Psychiatry (Spar & La Rue, 1997) calls for an examiner to assess family dynamics, satisfaction of caregivers, and family conflicts as risk factors prior to implementing any treatment for depression in the aging population. The DSM-IV highlights the symptom of depressed mood, most of the day nearly every day (APA, 1994).

Risk factors alone cannot be used for sole diagnostic criterion, however, the correlation of these concurrent risk factors and depressive symptomology are well-documented (Spur & La Rue, 1997). Reynolds, Small, Stein and Teri (1994) listed the following risk factors of depression: current substance abuse, family history, female gender, lack of social support, medical comorbidity, neurologic comorbidity, prior episodes of depression, prior suicide attempts, stressful life events and ongoing difficulties. These risk factors can be utilized to alert mental health professional of potential venues to include in assessing depressive symptomology. Reynolds and his affiliates (1994) further listed risk factors of suicide and advocated an in-depth interview to ascertain the correct diagnoses between depression and suicidal ideations. Risk factors for suicide include: advanced age, anxiety or panic disorder, Caucasian race, family history of substance abuse, family history of suicide attempts, general medical illnesses, hopelessness, social isolation, living alone, male gender, prior suicide attempts,

psychosis, and substance abuse (Reynolds et al. 1994). The interrelationship of depression and suicidal risk factors may hinder or impede diagnosis of clinical depression and transient depression. In later work, Reynolds (1995) reports social factors also can predispose a person to depressive symptomology hindering their enjoyment of life. Since the goal of the helping profession is to facilitate positive emotional and physiological well being in clients or patients, the importance of investigating the effects of depressive symptomology and risk factors have on life satisfaction is essential. Depressive symptomology is much more prevalent in our society than is clinical depression. An expansive literature has examined the symptoms of depression and how these symptoms interact with life transitions, daily hassles, emotionality, physical and mental health (Aldwin, Levenson, Spiro, & Bosse, 1989). Depressive symptomology is said to affect all of us at one time or another in our lives.

We all experience feelings of sadness or emptiness, emotional periods, daily life hassles, and life transitions. The magnitude and duration of these periods can contribute to both reduced satisfactions with life and coping capacities. Depressive symptomology can effect our social, physiological, psychological, and spiritual well being. Waelde, Silvern, and Hodges (1994) found a significant relationship between depression and suicide attempts during stressful life events. Solomon (1981) reported that 30 - 50 percent of the elderly will have depressive symptomology that will impede their daily living and life satisfaction. Dorfman, Lubben, Mayer-Oakes, Atchison, Schweitzer, De Jong, and Matthias (1995) reported that socially isolated people are twice as likely to be at risk for depression. Further, people that have poor health are three times more likely to have depression and conversely, people with depressive symptomology are nearly 50

percent more likely to have health problems (Mayer-Oakes, et.al., 1995). Reynolds (1995) cites depression as a major cause of disability in the elderly and that 15 - 30 thirty percent of all elderly in nursing homes are there as a result of immobility caused by depression. However, Ferentz (1995) stated that 15 percent of non-institutionalized elderly with medical illnesses have co-existing depression or comorbidity, which complicates treatment of either or both illnesses.

As noted earlier, some of the predisposing risk factors for depression are specific to certain cultures, social-economic, gender and age categories. Depressive symptomology is commonly associated with females (Beck, 1967; Reynolds, et.al., 1994; Reynolds, 1995; Rook, 1987; Aldwin, et.al., 1989; Dorfman, et.al., 1995; Reynolds, 1995; Essex & Klein, 1989; APA, 1984). Essex and Klein (1989) attribute this apparent gender difference to the differing self-concepts and coping abilities that women and men utilize. Their study examined the linkages among physical, functional, and subjective components of physical health status, self-concepts, and depression among older women. They concluded that health confidence and positive cognitive coping responses directly affected self-esteem and had a direct negative effect on depression. This study only investigated female subjects, however, these authors surmised that depression was much more prevalent among females based on their review of literature.

Maddox and his associates (1995) noted age as the primary contributing factor to depression. Others also have uniformly stated that depression in the elderly population is far more significant and has accelerated at a faster rate than in the general population (Blazer, 1993; Essex & Klein, 1989; Newhouse, 1996; Page & Cole, 1991; Muller-Spahn & Hock, 1994; Claire, Fitzpatrick, & La Gory, 1995; Tubman & Windle, 1994). Such

age differences in depression have prompted researchers to investigate predisposing factors, social influences, gender and cultural factors associated with depression among older adults.

Gender, losses, social roles, health, socioeconomic, and age categories have been used along with diagnostic test instruments or measurements to differentiate depressive symptomology from clinically diagnosable levels of depression. As noted early, duration and magnitude of depressive symptomology differentiates clinical depression from symptomology. The term transient symptomology is used when a person has a diagnosable depressive episode; however, the duration of the depression is within normal limits of the stress stimulus. For example, people that experience transient depressive symptomology with the passing of a loved one are said to be in normal grieving. However, if this grieving or transient depressive symptomology were to last longer than a six month period and other criterion categories were met, the person would then be diagnosed as having depression (American Psychiatric Association, 1984 [see DVM IV classification charts]).

Within the vast body of research devoted to predisposing factors, several causal patterns have consistently emerged: genetic predisposition, comorbidity of non-psychiatric organic diseases, losses, and status quo of social support networks. The medical community has attempted to determine if myriad human illnesses are attributable to genetic causes. Accordingly, Newhouse (1996) asserted that depression is a genetically linked illness. Martin (1995) traces anxiety and depression to genetic links in the elderly population. He believes people are predisposed genetically to experience depressive

symptomology and that medical and mental health illnesses may cause or exacerbate depression.

The elderly face many social vulnerabilities that may impede well being or life satisfaction. Marano, Cisler, and Lemerond (1993) state that losses experienced when a relationship ends due to death, discord, or relocation are the most serious vulnerabilities the elderly face. They concluded that these vulnerabilities predispose older adults to depression and suicide. Human relationships as well as social or emotional isolation (Weiss, 1973) have long been noted as predisposing factors in historical social research literature. As stated earlier, isolation, loneliness, and conflict within relationships are all areas of concern when assessing depression. Indeed, literature abounds regarding causality of depression and the possible associations with social or life events (Marano, et.al., 1993; Martin, 1995; Saughnessy, 1995; Crigger & Forbes, 1997; Devons, 1996; Hortacsu, Cesur, & Oral, 1997; Miller, 1995; Scheck, Kinicki, & Davey, 1995; Claire et al. 1995; Rook, 1987; Milanesi, 1991; Lazarus & Folkman, 1984; Parsons, 1968; Hooyman & Kiyak, 1988; Pagel, Erdly, & Becker, 1987; Jorm, Henderson, Korten, Christensen, & Mackinnon, 1995; Maddox, et.al., 1995).

Gerontological research has revealed an increase in depressive symptomatology in recent years. Devons (1996) asserts that depression is not a normal response to the aging process. She reports significant depressive symptomology among 13 to 27 percent of the elderly and depression as a factor in two-thirds of elderly suicides (Devons, 1996). Further, she links the increase in elderly depressive symptomology to the increases in losses experienced in later years (e.g., retirement, social status, health, independence, friends, family, memory, home, youth, and beauty). Transient depressive

symptomatology from the above mentioned losses are thought to be less attributed to attrition than individual perception of life events (Maddox et al. 1995).

Pagel and associates (1987) investigated social network satisfaction and depression among caregivers of Alzheimer's patients. The results of this longitudinal study yield a significant association with caregivers' upset and lower network satisfaction being linked to increased levels of depression. Further, these researchers noted that their subject population was different than Rook's (1984) subject population with respect to transitional emotional strain. The former studied subjects during gradual loss (i.e., Alzheimer's caregivers), and in the later study, subjects were widowed women who were already transitioning after a spousal loss. Pagel and his associate's (1987) design was longitudinal in scope and this design seems somewhat superior when investigating depression than the cross-sectional design used in the Rook (1984) study.

Purpose of Study

The purpose of this study is to extend the pervious bivariate research findings (Davis, 1997) by using a multivariate exploratory model building regression analysis in an attempt to demonstrate how social support, social conflict, and demographics are associated with depression. As reported previously, conflict with friends' is correlated with depression (Davis, 1997). Would a multivariate regressional analysis supply enough power to the data to predict current conflict with family members and friends and does depression overpower the quality of relationships with either family or friends. Due to the vacillating nature of depression, the current study will use a longitudinal design to measure and assess depression and conflict within social networks.

The above research questions reflect and parallel previous research in the area of social conflict. They assert that problematic exchanges within the social network decrease a person's perception of the adequacy and overall satisfaction of their social network in times of need. Such conflicts could be particularly problematic for the rural elderly. Elders in rural areas may be geographically isolated from family and friends and this, in turn, limits their available resources. Their social network may be small, and therefore, conflict may threaten continued or future support. Additionally, the social networks of rural individuals often are tightly interwoven. Many members of the network know (or are acquainted with) and interact with one another. Conflict in such networks often travels along these closely connected lines. Therefore, conflict between two individuals may then travel to others creating further distress and tension within the network.

CHAPTER TWO

Methodology

This study is an extension of previous research (Davis, 1997) and serves as a component of a larger exploratory pilot study of rural elderly in west central Wisconsin. The purpose of the pilot study was to collect data to examine the social and ecological influences on the mental and physical health of older rural Americans (Milanesi, 1993). The project was funded by a University of Wisconsin-Stout Faculty Research Initiative Grant to the principle investigator, Dr. Louis Milanesi. This portion of the longitudinal study investigates the relationships between social support conflict with family and friends, demographic factors and depression among rural elderly from west central Wisconsin.

Participants

The pre-attrition sample consisted of 66 rural elderly volunteer participants who were recruited by local and senior citizen advertisements, county aging offices, and referrals from County Agencies on Aging. Three waves of data were collected over an 18-month period. The current study extends previously reported findings by integrating

information across all three data collections. Of the original sample, a panel of 27 women and 3 men provided complete data during the final stage of data collection.

Instrumentation

Data measuring associations linking social networks, perceived adequacy of these social networks, conflict within these social networks and depression were collected and evaluated via measurements from the Social Network Questionnaire (SNQ), the Negative Social Exchanges (NSE), the Center of Epidemiology Study-Depression (CES-D), and condensed version of the Multidimensional Fuctional Assessment of Older Adults (OARS) from Duke University.

The Social Network Questionnaire (SNQ) contains a variety of questions related to the size, geographical proximity, and frequency of contact, perceived adequacies and reliability of support received from social networks. This questionnaire was used in data collection by Milanesi and Colby (1991) in a cross-cultural study of stress and aging. These same questions represent a line of questioning that existed in previous research of social networks and social support. These measurements have been used to supplant the conflict measurements, and to provide independent but parallel measures of the perceived adequacy of the social networks.

The Negative Social Exchanges (NSE) scale (Milanesi, 1991; 1993), a modified version of Rook's (1984) instrument was used to measure conflict and frequency of conflict in social exchanges between the responder and the responder's family and friends. In the original form, Rook (1984) measured to what extent the respondent perceived conflict with family and friends and to what degree the conflict upset the respondent. In addition to this specific conflict data, the study recorded the actual names

of the social network members that followed a more micro-structural approach (Rook, 1984). The technique used by Milanesi resulted in a response protocol that generated an aggregate measure of conflict and upset. This approach also allowed the scale to be used in mailed surveys and telephone interviews, as well as the in-person medium used by Rook. The current version of the NSE (Milanesi, 1993) scale consists of a survey procedure that includes eight exchange scenarios. Respondents indicate how many (1) family members and (2) friends initiated the conflict described in the scenario. The current version of the NSE appears less obtrusive to the subjects and expedites data collection for the interviewer (see Rook [1984] and Rook and [1987] for complete explanation of the original instrument). For the purpose of the current study, the Milanesi (1993) version of the NSE seems superior when measuring respondents' perceptions of frequency of conflict with family members and friends.

The CES-D was modified by Comstock and Helsing (1976) and Radloff (1977) from the Community Mental Health Assessment that was originally developed as an epidemiological research measurement (Radloff, 1977). Radloff and Teri (1986) stated that the CES-D is acceptable for use in the geriatric population, without consistency constraints due to age, racial, geographical, or cultural diversity. Other researchers reported that the CES-D demonstrated stable psychometric properties across diverse cultural groups (Roberts, 1980; Gary & Berry, 1985; Roberts, Vernon, & Rhoades, 1989; Garcia & Marks, 1989; Fava, 1983; Mahard, 1988; Barnes, Currie, & Segall, 1988; Ying, 1988; Radloff & Teri, 1986; Dorfman, et.al., 1995; Lubin, McCollum, Van Whitlock, Thummel, Powers, & Davis, 1994). Radloff and Teri (1986) documented the validity of the instrument using multiple criteria from patient status and clinical diagnosis, clinical

rating scales and other valid self-reported depression instruments (i.e., Beck's Depression Inventory, Zung). They also found that the CES-D discriminates well between general and clinical populations for the purpose of assessing possibilities of depressive symptomology. They reported that the scale demonstrated high internal consistency with coefficients ranging from .85 to .91 across a variety of studies.

The CES-D contains 20 questions. Subjects respond using a four point Likert scale (0 to 3) for total possible composite scores from 0 to 60. The authors suggest those scores of 17 or more have possible depression and those with scores of 23 or more are probably depressed. The authors caution against the use of the CES-D as the sole diagnostic criteria of depression, stating that physical health and suicidality items are not well addressed. Further, the CES-D was developed prior to the criteria established by the American Psychiatric Association (APA) in the Diagnostic and Statistical Manual of Mental Disorders, 3rd ed. (APA, 1980) and cannot distinguish between the different levels or sub-types of depression. However, the literature attests to the above-average reliability, validity and prediction capability of the CES-D for use as a screening tool in geriatric populations.

The Multidimensional Fuctional Assessment of Older Adults (OARS) study from Duke University (Fillenbaum, 1998) was used in a condensed form. The OARS contains a series of assessment scales used to assess physical and emotional well-being of the respondent along with the social and tangible resources at their disposal. Two scales from the OARS are employed in this longitudinal study. The depression checklist was included as a Time-1 measure of depressive symptoms. It's content and range is similar to that of the CES-D and it functionally represents a briefer parallel form of that scale.

The social resources scale was used as a measure of social support. Here, social support is operationalized as the availability of assistance, when required, versus a simple structural census of network size.

Design and Procedure

Standardized interviews were administered to the subjects by trained interviewers. These interviewers took part in several training sessions and practice sessions prior to interviewing. The initial interview (Time-1) was conducted by in-person interviews at the respondents' residences or place of choice. Time-2 and Time-3 follow-up interviews were conducted by telephone. In addition to the way the data was collected, the instruments used in the initial interview differed from the Time-2 and Time-3.

Time-1 data included information from personal diaries to gather demographic information, the depression checklist to record dpression symptomolgy, and social resources scale was used as a measure of social support all from the condensed version of the OARS. For the purpose of investigating the longitudinal inter-relations between conflict and depression using multivariate regression anylisis, Time-2 and Time-3 interviews provided repeated measurement of the SNQ, NSE, and the CES-D. Data collection for each pshase was done over a two week period, with six months separating Time-1, Time-2, and Time-3 collections.

Analysis

Stepwise regression procedures were used to explore longitudinal predictions of conflict with friends, conflict with family and depression across the 18 – month period. Time-3 measure of conflict with friends (CONFRN3), conflict with family (CONFAM3), and depressive symptoms (DEPRESS3) were used sequentially as dependent variables

and independently regressed upon the remaining two Time-3 measure, Time-2 measures of conflict (CONFRN2, CONFAM2), depressive symptoms (DEPRESS2) as well as TIME-1 measures of social support (SOCSUP1), depressive symptoms (DEPRESS1) age and gender. Standard criteria for variable entry into the model (.05) were used and iterations of the model proceeded until no further variables qualified for entry.

CHAPTER THREE

Results

The outcomes of the exploratory regression analyses are mapped below. The panel of 30 subjects (27 females and 3 males) who provided Time-3 data was reduced to 28 due to missing data in earlier collections for two of the subjects. The panel ranged in age from 64 to 88 years with a mean age of 75.2 years. Seven subjects (23.3%) had not completed high school, another seven had graduated high school (23.3%), five had some business or trade school training after high school (16.7%), six had some college classes (20.0%) and the remaining five had post graduate training (16.7%). Sixteen subjects were widowed (53.3%), twelve were married (40.0%), one was divorced and another never married (6.6%). The median income fell in the $7,000-$9,999 range. Table 1 presents the Pearson correlation matrix for all variables used in these analyses.

Table 1

Pearson Correlation Coefficients for All Variables Included in the Analyses

	AGE	GENDER	SOCSUP1	DEPRESS1	CONFAM2	CONFRN2	DEPRESS2
AGE	1.00	-.06	-.10	.26	.11	.20	.12
GENDER		1.00	-.11	.25	-.16	-.17	-.14

SOCSUP1			**1.00**	**-.18**	**.11**	**-.04**	**.08**
DEPRESS1				**1.00**	**.36***	**.36***	**.38***
CONFAM2					**1.00**	**.63*****	**.57****
CONFRN2						**1.00**	**.60*****
DEPRESS2							**1.00**
CONFAM3							
CONFRN3							
DEPRESS3							

	CONFAM3	**CONFRN3**	**DEPRESS3**
AGE	**.03**	**.02**	**.17**
GENDER	**-.08**	**-.16**	**.02**
SOCSUP1	**.12**	**-.04**	**-.10**
DEPRESS1	**.36***	**.31**	**.64*****
CONFAM2	**.70*****	**.35***	**.59****
CONFRN2	**.70*****	**.63*****	**.52****
DEPRESS2	**.68*****	**.23**	**.81*****
CONFAM3	**1.00**	**.52****	**.60*****
CONFRN3		**1.00**	**.47****
DEPRESS3			**1.00**

Note: * $p<.05$, ** $p<.01$, *** $p<.001$

The results of the analysis that regressed Time-3 depressive symptoms (DEPRESS3) on the predictor variables are shown in Table 2. Four variables (DEPRESS2, DEPRESS1, CONFRN3 and CONFRN2) met the criteria for inclusion during successive iterations. As expected, the strongest predictors of depressive symptoms at the final follow up testing were previous symptoms; with Time-2 depressive symptoms (DEPRESS2) entering the equation first, being immediately followed by Time-1 depressive symptoms (DEPRESS1). Concurrent conflict with friends (CONFRN3) was

the third variable into the equation and Time-2 conflict with friends (CONFRN2) entered last. Age, gender, social support and the Time-2 and Time-3 measures of conflict with family members failed to predict sufficient additional variance to enter the equation.

Table 2

Regression Analysis of Time-3 Depressive Symptoms

				Change Statistics				
	R	R square	Adjusted R square	R square change	F change	df1	df2	Signif. of F change
Model 1	.810	.656	.643	.656	49.607	1	26	.000
Model 2	.883	.781	.763	.124	14.170	1	25	.001
Model 3	.908	.825	.803	.045	6.122	1	24	.021
Model 4	.927	.859	.835	.034	5.530	1	23	.028

The results of the analysis that regressed Time-3 conflict with friends (CONFRN3) on the predictor variables are shown in Table 3. Previous conflict with friends' six months earlier at Time-2 (CONFRN2) proved to be the only significant predictor of friend-based conflict at the final follow up testing. Interestingly, neither current nor earlier levels of depressive symptoms accounted for significant variance in the dependent variable once the 40 percent predicted by prior conflict were partitioned out.

Table 3

Regression Analysis of Time-3 Conflict with Friends

				Change Statistics				
	R	R square	Adjusted R square	R square change	F change	df1	df2	Signif. of F change
Model 1	.632	.399	.376	.399	17.250	1	26	.000

The results of the analysis that regressed Time-3 conflict with family (CONFAM3) on the predictor variables are shown in Table 4. Surprisingly, Time-3 conflict with family was best predicted by previous conflict with friends six months earlier at Time-2 (CONFRN2). Recent (Time-2) conflict within the friends accounted for 48.5 percent of the variance in current conflict with family members. Significant additional variance in current familial discord (11.1%) was explained by Time-2 conflict with family members (CONFAM2), which proved to be the only other variable that passed the entry criteria.

Table 4

Regression Analysis of Time-3 Conflict with Family

				Change Statistics				
	R	R square	Adjusted R square	R square change	F change	df1	df2	Signif. Of F change
Model 1	.697	.485	.466	.485	24.527	1	26	.000
Model 2	.772	.596	.564	.111	6.861	1	25	.015

The lonitudinal design of the data collected afforded the opportunity to extend analyses beyond the original study toward a more a complex relationship in which previous depression and conflict with friends (but only with friends) are associated with current depressive symptoms. The results of this analysis revealed the predominate predictor of current depression is previous depression. This significant result exemplifies the auto correlational effect of depression. The utilization of the inclusion criteria, significance at the level of .05 or better, places the next most powerful predictor of depression, current conflict with friends. Both conflicts with friends at Time-2 and conflict with friends at Time-3 predict depression however; the converse is not true.

The only thing that significantly predicts conflict with friends at Time-3 is conflict with friends at Time-2. Past conflict with friends is a good predictor of greater conflict within both friend and family networks. When analyzing conflict with family (Time-3) as the dependent variable, conflict with friends at Time-2 resulted as the best predictor for family network discord, followed by conflict with family at Time-2.

CHAPTER FOUR

Discussion

The current multivariate exploratory model building study clearly indicates that social conflict and revious depression are associated with durrent depression. As previously mentioned, analysis indicated four variables (DEPRESS2, DEPRESS1, CONFRN3 and CONFRN2) met the criteria for being identified as strong predictors of depressive symptoms in the final follow-up testing. Conflict with friends consistently revealed predictor value of depression, as was observed in the past study (Davis, 97). However, in the current study, conflict with friends also proved to be self perpetuating in nature (auto correlational). Also, that conflict with friends predicts current conflict with family members. Conflict with family was best predicted by previous conflict with friends (CONFRN2). Contrary to the beginning assumption, depression failed to overpower quality of relationships with friends.

One can draw future systemic treatment implications from the outcome of this research. The medical community has added systemic interventions (Spar and La Rue,

1997) when formatting treatment goals that included assessments of family dynamics and family conflicts prior to medical interventions or psychopharmacology to combat depression in the aging population. No mention was made regarding assessing non-familial social support networks or discord within such networks.

In the field of family therapy McGoldrick (1998) calls for a more encompassing view of support networks when compiling genograms. This current longitudinal research supports McGoldrick's call for assessing both positive as well as negative support functioning. Given the assumption that depression is a systemic problem, it would stand to reason that one must consider discord within support networks as a hindrance to systemic mental health wellness. Since conflict in friendship support networks is predictive of conflict in familial support, social support functioning is an ethical exploration for a Marriage and Family Therapist.

More research is needed to evaluate the predictive value of current depression toward forecasting future familial conflict. Although, not related to depression directly (as this study suggests) family conflict may act to gradually erode crucial support functions provided to elders by family members. Unfortunately, family members are the most common and immediate source of support for the elderly, especially in the domain of instrumental support. Davis (1997) reported that the perceived lack of instrumental support was significantly associated with depressive symptoms (although, admittedly not with current levels of conflict). Future research should investigate the potential lag-effect link between familial conflict and depression via loss of specific instrumental support. Further, this study only investigated depression. Other aspects of mental health may be affected directly by familial conflict.

Although, this regression analysis did develop four models of predictors for depression, the need for more detailed analyses of actual social support and conflict is warranted. While the micro-structural techniques employed in the past were quite detailed, they were generally too idiosyncratic to reveal reliable patterns of social exchanges (Davis, 1997). Thus they provided detailed descriptions of the social interactions of individuals, but they failed to produce reliable predictors of future outcomes. Conversely, far too often, social support and conflict have been assessed by overly inclusive, undifferentiated techniques that, similarly, failed to illuminate useful predictive models. Since this current research is one of the first to implement model building with regard to depression and social networks in the rural elderly, replication is warranted. Further, this regression analysis represents a minimal volunteer sample and a more expansive and extensive sample population could be useful. The results should be treated with caution regarding inferences about the overall population of older adults or (geographic or cultural) sub-populations. For instance, among other limitations or concerns, there were only 3 males as part of the samople for this study.

Further investigations of this nature could help clinicians determine the inclusions of a treatment plan. With a more holistic treatment plan, reduction of current and future conflict within family systems and possible identification of other effects of depression within social networks (both familial and non-familial) may be determined. This analysis did validate that the OARS depression module correlates well with the CES-D. Both measurements have been scrutinized in past research for cultural sensitivity. Along with the OARS, SNQ, NSE, and the CES-D, future development of more culture sensitive brief assessment tools used to predict possible depressive symptomology and social

support functioning from a systems perspective could facilitate effective treatment goals and outcome assessments.

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