

## Caregiver Network Structure, Support and Caregiver Distress<sup>1</sup>

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*Examined the relationship between the structure of caregiver personal networks, support, and perceived distress. It is argued that network structure should have little direct effect on distress but should have indirect effects via support. Data from 83 family caregivers to chronically mentally ill family members living at home in Summit County, Ohio, are used to test these assertions. The results provide mixed support for the general hypothesis. Most of the effects of network proportion of kin are indirect via support. Network size shows a similar pattern. The effects of network density on distress are mostly direct.*

Caregiving to a disabled family member is generally viewed as a stressful situation. Moreover, there is substantial documentation that the caregiver is subject to increased risk of physical and emotional distress as a result of caregiving (Brody, 1985; Deimling & Bass, 1986; George & Gwyther, 1986). Caregiving and its sequelae, then, clearly fit into a stress-distress paradigm in which one might expect that intervening factors such as coping and social support would play a role in mediating the direct relationship between caregiving and distress (Bass, Tausig, & Noelker, 1988-1989).

In this paper I investigate the relationships between the structure of caregiver social networks, resultant support, and caregiver perceptions of distress among a sample of family caregivers to chronically mentally dis-

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abled individuals living at home. The paper addresses the general issue of the relationship between microsocial structure (i.e., personal networks) and support, as well as the more specific issue of how this relationship affects caregivers to mentally ill family members.

## NETWORKS AND CAREGIVING

For the past 12 years, community-based care of the chronically mentally ill in the United States has been guided by a concept known as the Community Support Program (Turner & TenHoor, 1978). This concept conceives of community-based care as a joint function of professional mental health providers and informal "community" providers. Since somewhere between 50 and 65% of the chronically mentally ill reside with their families (Minkoff, 1978), the informal community usually includes the family (and most specifically, the family caregiver). During this same period, public funding for human services has decreased substantially, placing further demands on the private, informal sector to provide services (Saunders, 1986).

Despite the shift to community-based programs and the increased demand on informal providers, little is known about the factors that affect the amount and quality of informal services or support that can be expected from family, friends, co-workers, and the general community. Although there are a number of studies that examine how support networks affect a mentally ill person's risk of relapse or adjustment (Henderson & Moran, 1983; Holahan & Moos, 1981; Pattison, DeFrancisco, Wood, & Crowder, 1979), only a few examine how caregiver support affects the caregiver (Schulz & Decker, 1985; Schulz, Tompkins & Rau, 1988; Tomkins, Schulz, and Rau, 1988). If we take the view that to assist a mentally ill family member, the resources of the family (including those accessible through personal contacts) must be mobilized, then the specific goal of understanding the nature of this informal service "system" can be advanced by examining the structured access to support that comes from personal networks. In this particular study we are interested in how the structure of the caregiver's personal social network affects caregiver support that may affect perceptions of caregiver distress.

## NETWORK STRUCTURE AND SUPPORT

Reviews of the social support construct (Barrera, 1986; Broadhead et al., 1983; S. Cohen & Wills, 1985; House, Umberson, & Landis, 1988) clearly indicate the need to think of social support as multidimensional;

consisting, at least, of structural and process (functional) components and distinguishing between perceptions of support and actual receipt. This paper uses a "social resources" perspective (Lin, 1982; Lin & Dumin, 1986) to argue that personal network structures affect the amount of emotional, practical, and informational support that can be mobilized by a given person to deal with stressful conditions such as caregiving. The perspective focuses explicitly on how structured interpersonal relations condition the types and extent of support that a help-seeker can obtain via social relationships. Although there are limits to the extent that this approach addresses the complexity of social support, it has the virtue of permitting a more precise theoretical and analytic examination of the relationships of interest.

The interpersonal network that one maintains can be defined as a social resource (Campbell, Marsden, & Hurlbert, 1986). In this view both the range of persons to whom the network provides access and the social characteristics of those persons represent constraints or opportunities to acquire valued resources (e.g., support).

Not all of the resources to which one may gain access via a personal network represent support. Ties to others offer sociability, general information, and material resources that are useful in day-to-day activity. Some of the resources accessible through networks are, however, explicitly sought or used to provide instrumental, informational, or emotional support (Schulz & Decker, 1985; Schulz et al., 1988).

Networks vary in structure. This suggests that, to the extent that support is accessible through the network, there will be variations in the types and amounts of support that is available. Both Campbell et al. (1986) and Marsden (1987) have reported differences in network structures to be related to income, education, and age. Similarly, Kessler and McLeod (1984) reported that men and women often maintain different network structures. Studies of the networks of mentally ill individuals implicitly make a similar argument, that the networks of the mentally ill are not as "resourceful" as those of "normals" (S. I. Cohen & Sokolovsky, 1978; Hammer, Makiesky-Barrow, & Gutwirth, 1978; Tolsdorf, 1976).

When we apply the notion that network structures affect available support to the issue of family caregivers, we can make the following arguments. By definition, the caregiver is one who provides assistance with daily living tasks to a disabled family member. The capacity of the caregiver to provide this assistance will be a function of personal caregiver resources and the mobilization of resources (support) mediated by others including those within the caregiver's personal network. Note that the support required is not solely (or even most importantly) that which directly benefits the disabled family member. Caregivers may well require moral support or

material support from others to maintain the caregiving relationship. From the perspective of the caregiver, the caregiving relationship represents a continuing stressor. It makes sense, then, to suggest that the caregiver would benefit from the acquisition of support as one mechanism that might offset any personal consequences of dealing with this stressor. Therefore, understanding variations in caregiver capacity to acquire support from personal networks should lead to a better understanding of the origins of caregiver distress.

Clearly the mere presence of a helpful resource within one's network is not equivalent to its successful mobilization. This is why the distinction between the structure of the network and support is made. Yet it is also likely that network structure and support will be related (Schulz et al., 1988). The research reported here examines this relationship. The study measures the structural properties of caregiver social networks, reported support, and levels of caregiver distress. It is then expected that (a) different network structures are related to different levels of support, and (b) different levels of support are related to different levels of caregiver distress.

## METHOD

### *Sample*

The data on which the analysis is based were derived from a survey of primary caregivers to chronically mentally ill persons living at home within Summit County, Ohio. Respondents were recruited into the sample through a process in which clients of Community Mental Health Centers who were living with their families were asked by agency personnel to volunteer the name of a family caregiver. Potential caregiver respondents were then contacted by letter and telephone to obtain consent to be interviewed. We contacted 138 potential respondents: 83 (61%) complete interviews were obtained, 27 partial interviews were collected, and 28 persons refused to be interviewed. All interviews were conducted by telephone by research assistants trained in telephone survey techniques. The average interview lasted 25–40 minutes. The size of the interviewed sample (83) and the characteristics of the caregivers and clients are consistent with other samples from similar investigations (Hatfield, 1978; Lefley, 1987; Noh & Turner, 1987; Tessler & Manderscheid, 1982).

The typical client in the study was a white (81.5%) male (61.4%) between the ages of 25 and 34, who had never been married (62.7%), completed high school (42.7%), and was unemployed (75.3%). Average age of onset of psychiatric problems was 23.6 years old and average length of ill-

ness was 8.9 years. Just over 40% of the patients had received a diagnosis of schizophrenia. Almost three fourths of the clients had been hospitalized at least once (the average was 4.1) and almost one half were reported to have physical limitations that interfered with daily activities. In comparison with the total locally served public mental health system population, study clients are slightly younger, less likely to be married, and more likely to be unemployed.

Caregivers were most likely to be mothers of clients (55.4%), typically between the ages of 55–64. Just over one half of the caregivers were currently married and caregivers reported providing an average of 2.2 hours of assistance daily to their ill family member. In comparison with general community figures, sample households were more likely to report incomes between \$5000 and \$15,000 and less likely to report incomes over \$25,000.

### *Caregiver Distress*

The outcome measures in this study are two factor-analyzed indices of unmet needs. One index reflects the need for help in direct care provision to the ill family member and the second index assesses need for help in dealing with other family problems that may or may not arise as a result of the ill member's presence. Both scales reflect level of caregiver distress or burden by indicating the extent to which needs exceed current caregiver capacity. Thirteen items reflecting unmet needs were factor analyzed using principal axis factoring and varimax rotation techniques. The unweighted sum of the items from each of the two factors constitute the distress scales.

The client-related distress scale contains four items (need for temporary relief from caring for client, need to understand client needs and problems, need for information about programs and services, and feelings that the demands of caring for the client are a burden). This scale has an alpha reliability of .65.

The family-related distress scale contains nine items (need for a ride to the store, bank, etc., help with household chores, recreation, family crisis, family members not getting along, financial problems, housing problems, employment problems, and routine health problems). The scale has an alpha reliability of .79. Items in both scales were scored: *never* (1), *sometimes* (2), *often* (3), and *almost always* (4). Higher scores denote greater distress.

### *Support*

Following Lin, Dean, and Ensel (1986), expressive and instrumental support were measured by a series of items focusing on activities and con-

cerns that reflect adequate or problematic support function. Thirty items, including 14 used by Lin et al. asked caregivers to report how often in the past 6 months they had been bothered by such concerns. Frequent concerns indicate that the respondent has inadequate support. The items were factor analyzed using principal axis factoring with varimax rotation. Scale scores were constructed from unweighted sums of the items loading on each obtained factor. The analysis yielded four factors that are consistent with those found by Lin et al.

The first two factors represent expressive support and were defined as integrative and intimate support. The Integrative Support scale contains 7 items (problems communicating with others, not seeing enough of people, family members not getting along, not seeing neighbors, not getting out of the house, not seeing other family and friends, and not participating in religious or social organizations). The alpha reliability for this scale is .83. The Intimate Support scale contains 5 items (not having a close companion, not having anyone to depend on, dissatisfaction with marital status, not having someone who shows love and affection, and not having someone who understands your problems). The alpha reliability for this scale is .88. The response categories were *most of the time*, *occasionally*, *some of the time*, and *never*. Higher scale scores indicate better support.

The remaining two factors represent instrumental support defined as monetary support and time support (time to meet responsibilities). The Monetary Support scale contains 3 items (problems managing money, not having enough money to get by on, and not having enough money to do things). The alpha reliability of this scale is .77. The Time Support scale has 3 items (having too many responsibilities, too many demands on time, and having too little leisure time). The alpha reliability for this scale is .75.

The third and final type of support describes client utilization of formal services. This was measured by counting the number of services received by the client and also by the total reported hours of service per week. Utilization of formal services is considered to reflect support insofar as it demonstrates access to the wider social system.

### *Network Structure*

Network structure of the caregiver respondents in the study was assessed using the network generator from the 1985 General Social Survey (National Opinion Research Center [NORC], 1985), "From time to time, most people discuss *important matters* with other people. Looking back over the last six months—who are the *people* with whom you discussed matters important to you." Although the "discussion network" represents only one

of many possible kinds of networks an individual maintains, prior research has shown that it generally elicits both kin and friends who are significant sources of emotional and instrumental support (Fischer, 1982; Marsden, 1987). Three indicators of network structure are obtained from this network generator. Size of network (0-5+) was measured by the number of discussion partners cited by the respondent. The proportion of kin in the network was employed as an indicator of network heterogeneity (Huang & Tausig, 1990). Finally, network density, the mean intensity of ties joining network members, was computed from respondent estimates of the intensity of relationships between members of the network other than the respondent (Marsden, 1987). Network density cannot be defined for networks smaller than size two since there can be no ties joining alters in smaller networks.

### *Client Disability Index*

A client disability index was also computed to reflect the areas of caregiving need represented by the ill family member. The index is a summed score of responses to 11 items indicating the degree of assistance required in daily living and personal care tasks.

## RESULTS

Table I provides a description of the properties of the discussion networks of our caregivers and a comparison of them with the properties of the networks of the general population obtained in the 1985 General Social Survey (GSS; NORC, 1985).

Eighteen percent of caregivers report very small discussion networks (0-1) members) whereas 17% report networks with 5 or more members. Similarly, 14% of caregivers report no kin within the network, whereas 38% report all members of the network are kin. Finally, almost 23% of caregivers report very sparse networks ( $< 0.25$ ), whereas one third report very dense networks ( $> 0.74$ ). The average caregiver network contains almost three members (2.88), is almost two thirds kin (0.63), and has a mean density of 0.55.

The networks of persons in our sample are marginally smaller than those found in the GSS (2.88 vs. 3.01), contain higher proportions of kin (0.63 vs. 0.55) and are of lower density (0.55 vs. 0.61). The network structures differ most markedly in terms of the distribution of density scores. A much higher proportion of the networks of caregivers have very low density ( $< 0.25$ ) compared to the general population (22.7 vs. 8.1%). Some of

Table I. The Structure of Caregiver Networks<sup>a</sup>

Variable	Value	Frequency	Percentage	Mean $\pm$ SD
Network size	0	2	2.5 (8.9)	2.88 $\pm$ 1.40
	1	13	16.0 (14.9)	(3.01) $\pm$ 1.77
	2	17	21.0 (15.3)	
	3	25	30.9 (21.0)	
	4	10	12.3 (15.2)	
	5	13	16.0 (19.2)	
	6+	1	1.2 (5.5)	
No. of kin in the network	0	14	16.9 (26.4)	1.75 $\pm$ 1.34
	1	27	32.5 (29.6)	(1.53) $\pm$ 1.34
	2	22	26.5 (21.8)	
	3	10	12.0 (12.6)	
	4	6	7.2 (6.3)	
	5	4	4.8 (3.3)	
No. of nonkin in the network	0	32	39.5 (36.4)	1.09 $\pm$ 1.11
	1	22	27.2 (22.2)	(1.40) $\pm$ 1.41
	2	15	18.5 (18.9)	
	3	11	13.6 (13.0)	
	4	1	1.2 (6.3)	
	5	—	— (3.1)	
Proportion kin	0.00	11	13.9 (19.2)	0.63 $\pm$ 0.36
	.01-.33	8	10.1 (15.4)	(0.55) $\pm$ 0.37
	.34-.66	25	21.6 (20.7)	
	.67-.99	5	16.4 (14.5)	
	1.00	30	38.0 (30.2)	
Network density	< .25	15	22.7 (8.1)	0.55 $\pm$ 0.37
	.25-.49	10	15.2 (18.0)	(0.61) $\pm$ 0.28
	.50-.74	19	28.8 (39.5)	
	> .74	22	33.3 (34.4)	

<sup>a</sup>Values from the General Social Survey (NORC, 1985) are in parentheses. Values are from Marsden (1987).

the observed differences may be explained by demographic differences (particularly gender and age) between this sample and the GSS sample.

Table II shows the correlation matrix among all measured variables in the study. The level of client disability is not related to any network structure variables but is related to the number of services received and to the client-related distress index.

The relationships between network structure and support are of particular interest. Network size is positively related to monetary support and formal services and inversely related to time support. The proportion of kin in the network is positively related to intimate and monetary support but inversely related to services. High proportions of kin reduce use of



Table II. Correlation Matrix for Measured Variables

	1	2	3	4	5	6	7	8	9	10	11	12
1. Client disability	—											
Network measures												
2. Size	.11	—										
3. Proportion of kin	-.16	-.11	—									
4. Density	-.17	.06	.34 <sup>b</sup>	—								
Support types												
5. Integrative	-.07	.10	.17	.24 <sup>a</sup>	—							
6. Intimate	-.02	.10	.29 <sup>b</sup>	.12	.58 <sup>c</sup>	—						
7. Monetary	.02	.25 <sup>a</sup>	.26 <sup>a</sup>	.11	.37 <sup>c</sup>	.52 <sup>c</sup>	—					
8. Time	.04	-.24 <sup>a</sup>	.14	.03	.48 <sup>c</sup>	.48 <sup>c</sup>	.37 <sup>c</sup>	—				
9. No. services	.43 <sup>c</sup>	.24 <sup>a</sup>	-.28 <sup>b</sup>	-.17	.05	.01	.03	-.08	—			
10. Hrs. service	.07	.05	-.32 <sup>b</sup>	.06	-.03	.09	-.15	-.08	.29 <sup>b</sup>	—		
11. Client-related distress	.29 <sup>b</sup>	-.02	-.21 <sup>a</sup>	-.26 <sup>a</sup>	-.41 <sup>c</sup>	-.35 <sup>c</sup>	-.37 <sup>c</sup>	-.43 <sup>c</sup>	.16	.14	—	
12. Family-related distress	.05	-.21 <sup>a</sup>	-.31 <sup>b</sup>	.06	-.52 <sup>c</sup>	-.56 <sup>c</sup>	-.70 <sup>c</sup>	-.49 <sup>c</sup>	.02	.24 <sup>a</sup>	.43 <sup>c</sup>	—
<i>M</i>	14.21	2.88	2.44	2.73	23.65	16.88	8.78	8.93	1.81	15.21	6.58	13.68
<i>SD</i>	4.32	1.40	1.44	1.16	4.93	4.07	2.82	2.82	1.38	14.23	2.68	4.77
<i>n</i>	82	81	79	66	78	81	82	83	83	73	78	75

<sup>a</sup>*p* < .05.  
<sup>b</sup>*p* < .01.  
<sup>c</sup>*p* < .001.

formal services (McKinlay, 1973). Density is positively related to integrative support but is not related to any other form of support.

Structural variables are also related to caregiver distress. Larger network size is inversely related to family-related distress, high proportions of kin are inversely related to both client and family-related distress and high density is inversely related to client-related distress.

Support is also strongly related to client and family-related distress. Both emotional and instrumental support are strongly inversely related to distress. Greater support means less distress. Formal services do not have these strong effects. Only a higher number of service hours is positively associated with family-related distress. The zero-order relationships affirm the previous expectations that network variables would be related to support and that support would be related to distress.

### *Network Structure, Support, and Caregiver Distress*

It was previously suggested that network structure should be viewed as a description of social resources and that variations in network structure should be related to variations in support. It was also suggested that the direct effects of network structure on caregiver distress should be weaker than the effects of support on distress. Network structure is thought of as a set of opportunities or limits on the types and quantities of support to which a given person has access, but structure is not equivalent to the mobilization or use of support. Thus, network structure precedes support and the effects of structure on distress should be mostly indirect through support functions that the structure affects. To examine that issue we must employ analytic techniques that permit us to isolate the separate effects of network structure and support on caregiver distress. Hierarchical regression analysis (path analysis) using reduced-form equations were thus employed to evaluate the causal relationships between structure, support, and caregiver distress (J. Cohen & Cohen, 1983).

First, although a mediation model has been theoretically derived, the possibility that a moderator model provides a better empirical description of the relationships was examined (Baron & Kenny, 1986). Interaction terms representing the products of the client disability index and types of support were constructed and regressed on the caregiver distress outcomes. With a single exception these models did not show significant interaction effects. Consequently, the mediation model is tested.

Figure 1 provides a depiction of the general relationships between constructs that are evaluated. Our main interest is in the direct and indirect (via support) effects of the network structure variables on caregiver distress.

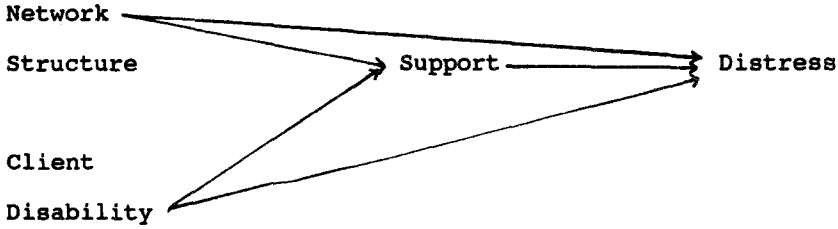


Fig. 1. General model of the relationships between network structure, client disability, support, and distress.

Table III reports the results of a series of path-analytic equations that permit the examination of the relationships between network structure, support, and both types of caregiver distress (client-related and family-related). Separate equations were run using each network structure variable as exogenous. The client disability scale was treated as an additional exogenous variable. It is not significantly related to network structural variables (see Table II). It is, however, often used to represent caregiver stressors in typical stress-support-caregiver distress studies (Bass et al., 1988-1989). Support variables that were not significantly related to a particular structural variable were not included in the relevant equation for that structural variable. Thus, each equation contains somewhat different support scales. Since we examine only the effects (total, direct, and indirect) of structure on distress, this poses no problem. It should also be noted that the central theoretical question the analysis is designed to test is related to the effects of network structure on support and distress and not the effects of support on distress. Although there is considerable discussion as to the best way to model the relationship between stress, support, and distress (S. Cohen & Wills, 1985), there is no similar discussion regarding the relationship between structure, support, and distress. Therefore, all equations were run using an additive effects (mediating) model.

In Table III, the significance of direct and total effects are reported since they can be derived from the appropriate partial coefficients in the regression analysis. However, the significance of indirect effects is not reported. First, the method for computing the significance of indirect effects suggested by Baron and Kenny (1986) or Sobel (1982), for instance, cannot be applied to the small sample used in the analysis. Second, more than one support scale is used in the equations so that the support variables are treated as a set in the regression analysis. According to J. Cohen and Cohen (1983, p. 366) there is no known formal test for the significance of

**Table III.** Summary of Direct, Indirect, and Total Effects of Client Disability, Network Structures, and Support on Client-Related and Family-Related Distress

Exogenous variable in equation	Effect <sup>a</sup>			Adjusted R <sup>2</sup>
	Direct	Total indirect (via support) <sup>b</sup>	Total	
Client-related distress				
Equation 1 <sup>c</sup>				
Proportion of kin	0.046	-0.155	-0.109	
Client disability	0.219	0.008	0.227	.074
Equation 2				
Density	-0.115	-0.032	-0.147	
Client disability	0.306 <sup>d</sup>	0.036	0.342 <sup>d</sup>	.146
Family-related distress				
Equation 3 <sup>c</sup>				
Proportion of kin	-0.073	-0.261	-0.334 <sup>d</sup>	
Client disability	-0.011	0.018	0.007	.453
Equation 4				
Size	-0.354 <sup>d</sup>	0.125	-0.229 <sup>d</sup>	
Client disability	0.084	-0.013	0.071	.299

<sup>a</sup>Effects are given as standardized coefficients. No spurious effects are reported since both the network variable and client disability are exogenous and are, therefore, assumed not to share their causes with any endogenous variables (support).

<sup>b</sup>The total indirect effect summarizes the effects of all support indicators used in a given equation. The support indicators vary from equation to equation based on the zero-order relationship between the network variable and specific support scales.

<sup>c</sup>No equation for the effects of network size on client-related distress was estimated because size was unrelated to client-related distress at the zero-order ( $r = .02$ ). No equation for the effects of density on family-related distress was estimated because density was unrelated to family-related distress at the zero-order ( $r = .06$ ).

<sup>d</sup> $p < .05$ .

indirect effects under this condition. The indirect effects may actually be over- or underestimated because the variables in the set are treated as exogenous with regard to one another. Hence the interpretation of the importance of the indirect effects is treated with caution.

Table III shows the causal effects results for the separate equations for both client-related and family-related caregiver distress. Causal effects are decomposed to show the direct effects of each structure variable on distress and the indirect effect of each structure variable via the support indicators. The total effect and the proportion of explained variation are also given. The direct, indirect, and total effects of client disability on distress are also given. Since the zero-order relationship between network size and client-related distress was so small ( $r = .02$ ), no equation relating size to client-related distress was run. Similarly, the relationship between density

and family-related distress was not significant ( $r = .06$ ) and no equation for this model is provided.

In the equations predicting client-related distress (Equations 1 and 2) it is clear that client disability has strong direct effects on distress. Disability is not mediated by support. Both proportion of kin and density have weak (nonsignificant) direct effects on client-related distress but there is evidence for a modest indirect effect of proportion of kin via support. Higher proportion of kin leads to greater support which in turn reduces this type of distress. The effect is modest, however.

In the equations predicting family-related support (Equations 3 and 4) client disability has neither significant direct nor indirect effects. Proportion of kin has an indirect effect via support. There is also a weak indirect effect of size on distress. Although proportion of kin has a small negative direct effect on family-related distress, most of the total effect comes via the effect that proportion of kin has on support. Greater size leads to more services (the support indicator in this equation) which in turn increases family-related distress.

Overall, the results provide mixed support for the hypothesis that the effects of network structure on distress are mostly indirect. The hypothesis is reasonably well-supported in equations predicting family-related distress for proportion of kin and possibly for size (although the indirect effect is not large). The effects of density are mostly direct. It is also interesting to note that the equations predicting family-related distress have fairly substantial  $R^2$ s. This suggests that caregiver network characteristics and support have less effect on client-related distress and are more important for the caregiver's management of family-related obligations.

## DISCUSSION

This paper has several objectives. At a theoretical level it addresses the relationship between network structure, support, and distress, and at a more concrete level, the study addresses questions about how caregiver personal networks are related to the experience of burden.

A number of reviews of social support research (Barrera, 1986; S. Cohen & Wills, 1985; House et al., 1988) made the point that the construct has many definitional and operational variations. Some of this variation is due to a failure to distinguish between the structure of networks (some of which can be described as supportive networks), the mobilization of support within these networks, and the effects of support on health outcomes. Networks are not identical with support but the access to social support that

networks provide represents an important opportunity or constraint on the likelihood that support can be mobilized and/or be helpful.

Studies that measure network structural properties and attempt to relate these properties directly to a health outcome (or distress) should be expected to show small or even insignificant effects. This is precisely what was found in this analysis. Network structural variables had small but consistent and significant zero-order relationships with client- and family-related caregiver distress. Introducing the mediating variables that represent support (emotional, instrumental, and agency) showed that network structural effects can be indirect through the support that network structure affects. This should be a general finding in studies that assess both network structure and support function.

The importance of understanding variations in access to social support in personal networks is highlighted by a review of the practical meaning of the findings here. Support, by itself, is inversely associated with both client- and family-related distress. The question addressed here was, how much of this association is influenced by network structure? The answer is, only some, and only in the area of family-related distress. Although discussion network structure affects support, it does not affect the type of support that serves to reduce client-related distress. On the other hand, networks appear to provide access to support through which the caregiver can reduce family-related distress.

Studies of caregiver distress generally do not consider the possibility that caregivers are affected by other than caregiving responsibilities (see Chiriboga, Weiler, & Nielsen, 1988-1989, for an exception). That is, studies of caregivers show how caregiving leads to care-related distress and so they do not consider how the existing context may affect family-related distress, as well. Caregivers do, in fact have other sources of strain to deal with. Although caregivers may be able to handle caregiving obligations themselves, they may find that doing so complicates other role performances or creates conflicts that make them more subject to family-related stressors (Pearlin, Mullan, Semple, & Skaff, 1990).

From a practical point of view, the results suggest that the impact of caring for disabled family members has two dimensions corresponding to client-related demands and maintenance of family-related obligations. Working with the networks of persons surrounding a caregiver could affect this latter dimension. If elevated levels of family-related distress disrupt families, then the continued ability of the caregiver to provide care might be endangered. Working with networks of caregivers, then, should have the goal of reducing the family-related impact of caregiving.

## REFERENCES

- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173-1182.
- Barrera, M. (1986). Distinctions between social support concepts, measures, and models. *American Journal of Community Psychology*, *14*, 413-445.
- Bass, D. M., Tausig, M., & Noelker, L. S. (1988-1989). Elder impairment, social support and caregiver strain: A framework for understanding support's effects. *Journal of Applied Social Sciences*, *13*, 80-117.
- Broadhead, W. E., Kaplan, B. H., James, S. A., Wagner, E. H., Schoenbach, V. J., Grimson, R., Heyden, S., Tibblin, G., & Gelbach, S. H. (1983). The epidemiological evidence for a relationship between social support and health. *American Journal of Epidemiology*, *117*, 521-537.
- Brody, E. M. (1985). Parent care as a normative family stress. *Gerontologist*, *25*: 19-29.
- Campbell, K. E., Marsden, P. V., & Hurlbert, J. S. (1986). Social resources and socioeconomic status. *Social Networks*, *8*: 97-117.
- Chiriboga, D. A., Weiler, P. G., & Nielsen, K. (1988-1989). The stress of caregivers. *Journal of Applied Social Science*, *13*, 118-141.
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, *98*, 403-413.
- Cohen, S. I., & Sokolovsky, J. (1978). Schizophrenia and social networks: Ex-patients in the inner city. *Schizophrenia Bulletin*, *4*, 546-560.
- Deimling, G. T., and Bass, D. M. (1986). Symptoms of mental impairment among elderly adults and their effects on family caregivers. *Journal of Gerontology*, *41*, 778-784.
- Fischer, C. S. (1982). *To dwell among friends: Personal networks in and city*. Chicago: University of Chicago Press.
- George, L. K., & Gwyther, L. P. (1986). Caregiver well-being: A multidimensional examination of family caregivers of demented adults. *Gerontologist* *26*, 253-259.
- Hammer, M., Makiesky-Barrow, S., & Gutwirth, L. (1978). Social networks and schizophrenia. *Schizophrenia Bulletin*, *4*, 522-545.
- Hatfield, A. B. (1978). Psychological costs of schizophrenia to the family. *Social Work*, *23*, 355-359.
- Henderson, A. S., & Moran, P. A. P. (1983). Social relationships during the onset and remission of neurotic symptoms: A prospective community study. *British Journal of Psychiatry*, *143*, 467-472.
- Holahan, C. J., & Moos, R. H. (1981). Social support and psychological distress: A longitudinal analysis. *Journal of Abnormal Psychology*, *90*, 365-370.
- House, J. S., Umberson, D., & Landis, K. R. (1988). Structures and processes of social support. *Annual Review of Sociology*, *14*, 293-318.
- Huang, G., & Tausig, M. (1990). Network range in personal networks. *Social Networks*, *12*, 261-268.
- Kessler, R. C., & McLeod, J. (1984). Sex differences in vulnerability to undesirable life events. *American Sociological Review*, *49*, 620-631.
- Lefley, H. P. (1987). Aging parents as caregivers of mentally ill adult children: An emerging social problem. *Hospital and Community Psychiatry*, *38*, 1063-1070.
- Lin, N. (1982). Social resources and instrumental action. In P. Marsden, & N. Lin (Eds.), *Social structure and network analysis* (pp. 131-146). Beverly Hills: Sage.
- Lin, N., Dean, A., & Ensel, W. M. (Eds.). (1986). *Social support, life events and depression*. New York: Academic Press.
- Lin, N., & Dumin, M. (1986). Access to occupations through social ties. *Social Networks*, *8*, 365-385.

- Marsden, P. V. (1987). Core discussion networks of Americans. *American Sociological Review*, 52, 122-131.
- McKinlay, J. B. (1973). Social networks, lay consultation and help-seeking behavior. *Social Forces*, 51, 275-292.
- Minkoff, K. (1978). A map of the chronic mental patient. Pp. 11-37. In J. A. Talbott (Ed.), *The Chronic mental patient: Problems, solutions and recommendations for a public policy*. Washington, DC: American Psychiatric Association.
- National Opinion Research Center. (1985). *The General Social Survey*. Chicago: Author.
- Noh, S., & Turner, R. J. (1987). Living with psychiatric patients: Implications for the mental health of family members. *Social Science and Medicine*, 25, 263-271.
- Pattison, E. M., DeFrancisco, D., Wood, P., & Crowder, J. (1975). A psychosocial kinship model for family therapy. *American Journal of Psychiatry*, 132, 1246-1251.
- Pearlin, L. I., Mullan, J. T., Semple, S. J., & Skaff, M. M. (1990). Caregiving and the stress process: Overview of concepts and their measures. *The Gerontologist*, 30, 583-594.
- Saunders, P. (1986). *Social theory and the urban question* (2nd ed.). New York: Holmes and Meier.
- Schulz, R., & Decker, S. (1985). Long-term adjustment to physical disability: The role of social support, perceived control, and self-blame. *Journal of Personality and Social Psychology*, 48, 1162-1172.
- Schulz, R., Tompkins, C. A., & Rau, M. T. (1988). A longitudinal study of the psychosocial impact of stroke on primary support persons. *Psychology and Aging*, 3, 131-141.
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. In S. Leinhardt (Ed.), *Sociological methodology, 1982* (pp. 290-312). San Francisco: Jossey-Bass.
- Tessler, R. C., & Manderscheid, R. W. (1982). Factors affecting adjustment to community living. *Hospital and Community Psychiatry*, 33, 203-207.
- Tolsdorf, C. C. (1976). Social networks, support and coping: An exploratory study. *Family Process*, 15, 407-418.
- Tompkins, C. A., Schulz, R., & Rau, M. T. (1988). Post-stroke depression in primary support persons: Predicting those at risk. *Journal of Consulting and Clinical Psychology*, 56, 502-508.
- Turner, J. C., & TenHoor, W. J. (1978). The NIMH community support program: Pilot approach to a needed social reform. *Schizophrenia Bulletin*, 4, 319-344.