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SOCIAL SUPPORT AND PSYCHOLOGICAL DISORDER: A REVIEW*

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With the rapid growth in the literature on social support and psychological disorder, a review of the area is in order. The present article describes current conceptualizations of social support, and presents a distillation of empirical evidence on the relationships among stress, social support, and psychological disorder. The structure of support links and the quality of the relationships they provide appear to be associated with a range of mental health issues. Methodological problems with current research are assessed, and suggestions for appropriate design and conceptualization are offered.

The quality of the social environment has far-reaching effects on the human capacity to cope (Mechanic, 1974). One element of the social environment, supportive relationships with family and friends, may be crucial in sustaining us through life crises (Caplan, 1974). Recently, behavioral scientists and clinicians have begun to discuss and research the value of social support as a means of offsetting stress-generated physical and psychological disorders (Cobb, 1976; Erickson, 1977; Speck & Attneave, 1973).

The relationship between stress and illness is a central one in psychosomatic medicine (e.g., Holmes & Masuda, 1974). But some people under high stress fail to fall ill, while others experiencing relatively little stress do become sick. Social support is currently seen as a moderator variable which helps to explain such findings (Antonovsky, 1979; Cassel, 1976; Johnson & Sarason, 1979; Rabkin & Streuning, 1976).

With the view that analogous effects may hold for psychological disorders, the President's Commission on Mental Health (1978) recommended increased research into the relationships among stress, social support, and mental health as have figures in community psychology (Caplan, 1981; Dohrenwend & Dohrenwend, 1981; Gottlieb, 1981; Kelly, Snowden, & Muñoz, 1977). One assumption in community mental health practice is that while some stressors can neither be avoided nor modified, interventions which increase available social supports can facilitate coping in the face of stress (Caplan & Killilea, 1976; Silverman & Murrow, 1976). Unfortunately, as Heller and Monahan (1977) note, "in general, the evidence is sparse concerning the ability of supportive social structures to moderate the impact of stressful life events. . . . How support operates, or how its beneficial effects can be optimized is a matter for future research" (pp. 132-133).

Much "future research" has been done since 1977, greatly expanding our knowledge of social support's structure, effects, and relationship to stress and psychological disorder. The literature on support and psychological disorder has grown quickly and is characterized by a diversity of definitions, methodologies, and theories. The implications of the research are considerable since the findings and conclusions from this work may influence the shape of primary and secondary prevention efforts with a wide range of populations. What follows is a review of that literature.

Before we review the evidence, we must address an essential question: What, exactly, *is* social support? While most of us have a feel for what support involves, a mere feel for a concept does little to provide a theoretical framework for research and intervention efforts. Some writers have offered only the vaguest of definitions of "social support." Beels (1981), for example, defines social support as "whatever factors there are in the environment that promote a favorable course of the illness" (p. 60), optimistically

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assuming we will know support when we see it. Another definition is thoroughly circular: "Social support may be defined as support accessible to an individual through societal ties to other individuals, groups and the larger community" (Lin, Simone, Ensel, & Kuo, 1979, p. 109). Neither definition does much to clarify the muddy conceptual waters.

Other experts have defined social support more concretely. Cobb's (1976) definition, an oft-cited one, links support to the notion of information. Specifically, social support is information leading the subject to believe that he or she is cared for, esteemed, and a member of a network of communication and mutual obligation. Caplan (1974, 1981), while not neglecting the importance of affect, also stresses the cognitive aspects of support. He sees support as the guidance and feedback provided by others which enable a person to emotionally master a stressful life episode. Under the umbrella of social support, Caplan also includes instrumental support—the provision of tangible resources such as child care or money. This is very much in line with Kahn and Antonucci (1980) who define social support with 3 A's: affect, affirmation, and aid. Support may involve the expression of caring and emotional intimacy (affect), the provision of information about the rightness or wrongness of one's actions or thoughts (affirmation), and the availability and use of direct help through money, time, effort, and the like (aid).

Only one study to date has collected data on how ordinary people see support (Gottlieb, 1978). In Gottlieb's typology, "emotionally sustaining behavior" is the largest category of support activities, a type of support with overtones from Cobb (feeling loved), Caplan (emotional mastery), and Kahn and Antonucci (affect and affirmation). Examples of these behaviors are: reflecting concern, listening, and providing intimacy. The second large category of support behaviors, "problem-solving behaviors," parallels the concepts of instrumental support, aid, and cognitive guidance. Giving material aid or suggestions are examples of problem-solving behaviors. Gottlieb also identified two smaller categories of helping behaviors: indirect personal influence (conveying to another that one is available, which sounds like a variation on the theme of intimacy), and environmental action (stepping in to diminish a source of stress).

In a masterful integration of the many conceptualizations of social support, House (1981) identifies four types of support behaviors: (a) *emotional support* which involves caring, trust, and empathy; (b) *instrumental support* which includes helping others do their work, loaning money, and going with others on difficult tasks; (c) *informational support* which means giving information or teaching a skill which can provide a solution to a problem; and (d) *appraisal support* which involves information that helps one in evaluating personal performance, as when a work supervisor tells an underling that a job was well done. The categories House proposes should not be seen as independent entities. For example, it is difficult to imagine an emotionally supportive relationship in which appraisal support is absent. Thus, these are interrelated components of the complex concept "social support." The House classification scheme seems to strike a good balance between comprehensiveness and specificity. Other researchers, in different language, advocate similar components of a multifactor conceptualization (e.g., Lin, Dean, & Ensel, 1981; Wolfe, 1981). It is a taxonomy which will be used later in this review.

The definitions so far limit themselves to social support activities and their qualities. Another, and perhaps more fundamental, issue is the existence and availability of the interpersonal ties themselves. Social network analysis provides a means to measure this aspect of support. A social network refers to the ties one has with a group of people and the links within the group. It is a way to objectively measure the structure of a person's social resources and examine how structure varies across a range of settings (Mitchell &

Trickett, 1980). For example, the interconnectedness of network relationships, referred to as "density," could be investigated to see how or if behavior changes systematically in settings of different network density. Network analysis offers the appeal of a structural approach. Structure can be reliably measured, and certainly reliable measurement is a necessary precursor to understanding the relationship of the social environment to psychological disorder (Mueller, 1980). In fact, some have suggested we abandon the concept "social support" and its inherent subjectivity in favor of strict network analysis (Hammer, 1981).

But this dichotomy seems overly restrictive. There is no doubt that support has a quantitative element. Having no friends or relatives on which to rely obviates the need for assessing the supportiveness of one's network. But merely counting people and computing ratios concerning density and other structural variables does not touch the depth of the concept "support." A large, interconnected network such as an extended family can be mobilized for support, but also for condemnation and ostracism. Social support must therefore be seen as the availability of helping relationships and the quality of those relationships—*both* the structure and the content of the phenomenon.

The material which follows is a thorough, if not exhaustive, compilation of research on informal social support and psychological disorder. Studies which report support effects on physical health alone are excluded from the review. The review of forty-six studies is organized according to the different research strategies employed with the purpose of finding consistent relationships among social support, stress, and psychological disorder. Later in the paper, methodological problems with this research are addressed as well as prospects for correcting defects in methods and conceptualization.

Research Strategies

A global means of understanding the support-disorder relationship is to compare the informal support systems of clinical and nonclinical populations. This design is guided by the assumption that clinically diagnosed populations will report different, and presumably inadequate, social support structures compared to those of "normal" populations. Ten of the forty-six studies (Clark & Cullen, 1974; Cohen & Sokolovsky, 1978; Froland, Brodsky, Olson, & Stewart, 1979; Garrison, 1978; Henderson, Byrne, Duncan-Jones, Adcock, Scott, & Steele, 1978; Miller & Ingham, 1976; Pattison, DeFrancisco, Wood, Frazier, & Crowder, 1975; Roy, 1978; Silberfeld, 1978; and Tolsdorf, 1976) have employed this strategy. A second method of investigation involves sampling people with specific forms of disorder. In this type of study, social support is presumed to differentiate the less from the more symptomatic. Most of this research has focused on the role of social support in depression (Brown, Bhrolchain, & Harris, 1975; Paykel, Emms, Fletcher, & Rassaby, 1980; Roy, 1978; Slater & Depue, 1981; Surtees, 1980). Schizophrenics (Turner, 1979) and concentration camp survivors (Davidson, 1979) have been studied as well. The third method of study assesses the support systems of the general population. These studies usually provide insight into the separate or interactive effects of support and life stress on the less severe forms of psychological difficulty. Ten of these investigations are epidemiological surveys (Andrews, Tennant, Hewson, & Vaillant, 1978; Eaton, 1978; Holahan & Moos, 1981; LaRocco, House, & French, 1980; Lin, Simeone, Ensel, & Kuo, 1979; Lowenthal & Haven, 1968; Phillips, 1981; Warheit, 1979; Wilcox, 1981; Biegel, Naparstek, & Khan, Note 1), while others used smaller samples, usually of college-age or younger students (Gad & Johnson, 1980; Sandler, 1980; Barrera & Sandler, Note 2; Procidano, Heller, & Swindle, Note 3).

The fourth research type is quite different from the previous three. Instead of focusing on the sample characteristics, this type assesses the coping response of individuals, all of whom are challenged by the same stressful life event. The question asked is, "given a similar life situation, do those with more and better supports manifest fewer psychological symptoms?" The stressful events studied range from the birth of a child (Carveth & Gottlieb, 1979; McGuire & Gottlieb, 1979; Wandersman, Wandersman, & Kahn, 1980) to the first year of college or graduate school (Hirsch, 1980; Goperlud, 1980; Leavy, Note 4) to unemployment (Gore, 1978) and death of a spouse (Barrett, 1978).

Finally, a few researchers have begun to look at the personal or demographic characteristics which differentiate the supported from the unsupported. The only such variable to receive substantial exploration is gender. Thus, the fifth research type consists of those studies which report sex differences in support (Burke & Weir, 1978; Hirsch, 1979; Holahan & Moos, 1981; Lowenthal & Haven, 1968; Phillips, 1981; Tamir & Antonucci, 1981; Ingersoll & Depner, Note 5).

Comparisons of Clinical and Nonclinical Populations

Many of the clinical-nonclinical comparison studies shed light on the most frequently asked question in the literature on support and psychological disorder: "Does a lack of social support correlate with symptomatology?" In an early study of this type, Tolsdorf (1976) compared the support networks of ten male hospitalized schizophrenics and ten matched controls hospitalized for physical ailments. The psychiatric patients proved to have fewer supportive relationships available to them than those with physical ailments. Pattison et al. (1975) also found that, in the small number of psychotics they studied, support was less available than in either neurotic or normal populations. Cohen & Sokolovsky (1978) found that, among residents of single room occupancy (SRO) hotels in New York City, psychotics had half the available support of nonpsychotic residents. A study of schizophrenic and nonschizophrenic Puerto Rican-born women (Garrison, 1978) bears out this finding. The support networks of the most severely disturbed women in that study consisted of few or no friends and virtually no family members, while nonclinical subjects had multiple supports, including spouses, children, friends, and relatives. Clark & Cullen (1974) compared 40 schizophrenics with 40 normal persons on the levels of support available and conflicting communication patterns in their social environments. Schizophrenics had less of the former and more of the latter.

When nonpsychotic individuals are studied, the same pattern holds. Henderson et al. (1978) compared the available and perceived support of 50 nonpsychotic outpatients with that of "normal" controls matched for age and sex. The patients had smaller support systems and perceived their level of support to be lower. Similarly, Miller and Ingham (1976) reported that people who consulted their family physicians for essentially psychiatric symptoms (tiredness, anxiety, depression, and irritability) had fewer supportive acquaintances than controls who did not consult with their doctor. Psychiatric patients with mild disorders were considered to be "impoverished in their social networks" when compared with matched "normal" controls (Silberfeld, 1978), and fewer depressed married women seemed to have confiding relationships with their husbands than did nondepressed women (Roy, 1978).

Finally, in one of the most comprehensive studies of this type, Froland et al. (1979) compared thirty individuals from the general population with thirty state hospital patients, twenty patients in day treatment, and twenty-seven outpatients. Several components of support were investigated: the size of the support system, its perceived sup-

portiveness, the nature of the supportive relationships (involving mutual exchanges or one-sided transactions), the density of the support relationships, and who the supportive others were (family, friends, agency professionals, etc.). In general, less available support was characteristic of those having more severe psychological disturbance. Other support variables involving the nature and quality of support also correlated with psychopathology, and are discussed below.

All together these studies produce remarkably consistent findings, although the definitions of support and psychopathology, and the means to measure them, vary greatly. All ten of the clinical-nonclinical comparison studies show that "normals" have more support available to them than people with psychological disorders. The data also indicate that the less the support, the more severe the psychopathology, although given the correlational nature of the data we cannot infer that lack of support causes abnormal behavior.

Clinical and nonclinical populations differ in more ways than just the size or availability of their support networks. The structure and nature of support may be influential as well. An important component seems to be the ratio of family to nonfamily supports. Five of the comparison studies report differences in the two samples based on family versus nonfamily support. Garrison (1978) found that the most disturbed schizophrenics in her study relied almost solely on nonfamily members, whereas more adaptive subjects had a significant number of family resources. Froland et al. (1979) also report that individuals who give relatively greater emphasis to family members (parents, spouse, etc.) as supports are less likely to report psychological distress. Relatively heavier reliance on friends, acquaintances, or relatives was associated with greater distress. Silberfeld's (1978) investigation of more mildly disordered outpatients supports the importance of the family-nonfamily dimension. Outpatient clients named fewer relatives and more friends as supports than did the controls. Interestingly, the clients spent significantly less time with these friends than did the normal controls. Cohen and Sokolovsky (1979) also report that among the elderly residents of SRO hotels those "with psychiatric symptoms had fewer ties with relatives" (p. 209).

The only conflicting study is that by Tolsdorf (1976) in which schizophrenic males reported family-dominated support systems when compared with normal controls. This may reflect the suffocating, enmeshed nature of some schizophrenic families (Beels, 1981) or a sample of schizophrenics who, early in their life course, have not yet lost family ties due to death or who have not yet "burned out" their family helpers. The inconsistency of findings cautions us against making sweeping generalizations about the shape of "good" or "bad" support networks.

Beyond the morphology of the support systems lies the dynamic, interactive nature of support. While the size and composition of one's network undoubtedly play significant roles, we can also find a rich source of information and understanding in the nature of the support *interaction*. One important interactive factor is the reciprocity of support relationships. It seems likely that severely dysfunctional people, whose interpersonal skills are deficient, will have many relationships in which they are the recipient of support rather than the provider of support. In this way they are not part of a network of *mutual* obligation, part of social support as Cobb (1976) sees it. Data from several sources confirm this notion. When compared with normal persons, psychotics seem to have predominantly one-way (dependent) relationships with supportive others (Cohen & Sokolovsky, 1978, 1979; Froland et al., 1979; Pattison et al., 1975; Tolsdorf, 1976). We

have no evidence as yet on whether this pattern holds true for nonpsychotic clinical populations.

In summary, evidence seems to indicate that clinical populations have social supports which differ from nonclinical populations in the following ways: (a) they are smaller support systems, (b) which emphasize nonfamily ties, and (c) which (at least among the most severely disturbed) are more one-sided than reciprocal. These are global differences between diagnosed clinical populations and "normal" nonclinical populations. Our interest may now center on whether, for each form of psychopathology, there is a particular relationship between support and disorder. Studies of specific clinical populations may address this question.

Studies with Clinical Populations

Most of the studies in this section concern clinical depression and its relation to stress and social support. The impetus for this work comes from George Brown and his associates in Great Britain who have studied the mediators of stress and psychological disorder for almost a decade (Brown, Harris, & Peto, 1973; Brown, 1974; Brown, Bhrolchain, & Harris, 1975; Brown & Harris, 1978). Their position is that while stressful life events can be triggering mechanisms for disorder, many contextual factors can either immunize individuals against symptoms or increase their vulnerability to them. Several years ago, Brown et al. (1975) reported that, among women, the single most powerful factor mediating negative life change and serious clinical depression was having an "intimate, confiding relationship with a boyfriend or husband" (p. 225). Women without an intimate who experienced life stress were almost ten times more likely to manifest serious depression than those similarly stressed who had a confidant.

This report led to five other studies of depression in men and women (Miller & Ingham, 1976; Paykel et al., 1980; Roy, 1978; Slater & Depue, 1981; Surtees, 1980). In all cases, having a confiding relationship correlated with reduced depression, although the confidant did not need to be of the opposite sex in some cases. Depression was particularly prevalent in women when instrumental and emotional support from husbands was absent or inadequate. For example, Paykel et al. (1980) reported that although the experience of negative life events was a principal means of differentiating clinically depressed from nondepressed post-partum women, among those experiencing one or more negative life events, ten times more of the depressed women received "no help" from their husbands than the nondepressed. Slater and Depue (1981), acknowledging the varieties of depressive disorder, used careful screening procedures to arrive at two small samples of primary depressives: one which made serious suicide attempts and one which did not. The attempters were significantly more likely than controls to lack a supportive confidant.

In the only study to use a prospective design, Surtees (1980) measured support and depressive symptoms upon admission to a psychiatric institution and again following significant improvement. Support was measured in terms of the existence of a confiding relationship, and the individual's perception of its quality. Having a close, reciprocal, confiding relationship proved to be a significant predictor of improvement in symptoms. In addition, the quality of the confiding relationship was particularly important for patients who experienced high levels of "residual adversity"—continuing stress after the onset of symptoms. Incidentally, this study gives the only report of test-retest reliability of support in a clinical population. The reliability of overall support measures was .66, while that for support from close confidants was .71. This indicates that, at least for the emotional components of support, we can achieve moderate reliability in measurement.

There are few studies of support in clinical populations other than depressives. One of these investigated the social supports of 103 formerly hospitalized schizophrenics from a poor, rural county (Turner, 1979). The findings here add strength to the notion that lack of social support is associated with symptoms and social dysfunction. The "disabled" schizophrenics in this study (those reporting the presence of extremely troublesome behaviors such as mutism or aggression) could not be differentiated from the "nondisableds" on the basis of their number of previous hospitalizations, type or amount of outpatient care, or sociodemographic variables. They did differ radically ($p < .0001$) on their level of social support, with the disabled former patients having far less. Support was defined in terms of having confidants, being satisfied with one's support interactions, and experiencing no sense of stigma in the community. The most functional respondents were most satisfied with their supports. The "nondisableds" also had significantly more nonfamily confidants, adding weight to the kin-nonkin dimension addressed in the previous section. Unfortunately, this report did not differentiate the effects of emotional support from the sense of stigma (a component analogous to a sense of esteem or affirmation). One would expect that ex-mental patients who engage in troublesome behaviors might sense a greater degree of stigmatization than more functional ex-patients. We see here how definitions of support may overlap with characteristics of disorder and how abnormal behavior may play a role in reducing access to and satisfaction with support ties. That psychosis can reduce the efficacy of support is supported by the finding that schizophrenics are more likely than normals to have a negative "network orientation": a set of beliefs that reliance on others is dangerous or useless (Tolsdorf, 1976). This attitude probably tends to nullify whatever supportive resources might exist in the social environment. However, we cannot assume that this attitude is a product of schizophrenic thought or that having an inadequate social support system causes this orientation to evolve. In fact, our best model might be of a cyclical process in which a lack of support and deviant behavior interact to exacerbate both problems.

The final study in this section (Davidson, 1979) adds sketchy information to previously outlined findings. Survivors of Nazi concentration camps who varied in their degree of postliberation symptoms (e.g., nightmares, irritability) were interviewed concerning their experiences in the camps and in the years after liberation. Although Davidson gives few details about his methods of measuring support, stress, or disorder, he reports that those who were moved from camp to camp during and after the war, and were thus deprived of establishing lasting emotional ties and a sense of place, experienced more postliberation symptoms. This suggests that, in addition to depression and schizophrenia, traumatic neuroses may be strongly influenced by the presence or absence of supports. Perhaps other disorders such as drinking problems, anxiety disorders, sexual difficulties, and antisocial personality will show similar patterns.

The clinical-normal comparison studies clearly indicated a relationship between a lack of support and serious psychological disorder. The present section points out the importance of support behaviors. Particularly in depression, a lack of emotional support in the marriage is related to dysfunction under stress. A lack of emotional support and affirmation (what House might call appraisal support) seems to differentiate disabled from nondisabled discharged schizophrenics. Is emotional, instrumental, or appraisal support negatively correlated with psychological impairment in the general population? Epidemiological and smaller-scale studies help to answer this question and are reviewed next.

Studies of the General Population

Results from seven epidemiological surveys of widely different groups generally show a weak but significant relationship between lack of social support and psychological impairment. The earliest study of this type (Lowenthal & Haven, 1968) involved interviewing aged men and women three times at one-year intervals. Support was defined in a manner similar to the British depression studies: having a confidant with whom one could discuss personal matters. The results were that the maintenance of an intimate relationship was the variable most closely related to good mental health and good morale. The loss of this intimate relationship had quite negative effects on morale, but not particularly strong effects on mental health.

Andrews et al. (1978) surveyed a large (N = 863) probability sample of adults in and around Sydney, Australia. Support was defined in three ways: direct crisis support (the number of people available to help in an emergency), indirect support from the neighborhood (the number and duration of ties with others in the community), and indirect support from social organizations (being a member of a church, social, or political group). A 63-item life events inventory and a general health questionnaire were used to measure recent life stress and the psychological impairment of the respondents. Direct crisis support proved the only type of support which differentiated impaired from nonimpaired individuals.

Lin et al. (1979) and Biegel et al. (Note 1) also found that support was negatively correlated with symptoms in their studies of urban Americans. In both, a new component of support was introduced: the respondent's integration in and attachment for the neighborhood. This perspective on support echoes Antonovsky's (1974) notion that ties to a place may be a significant emotional resource over and above those of interpersonal links. It is noteworthy that for ethnic minorities in these samples (Chinese-Americans in the Lin et al. study, and southern and eastern European-Americans in the Biegel et al. study), a lack of neighborhood attachments had a strong main effect on symptomatology. Among nonethnic, young, and upper socioeconomic status respondents, however, neighborhood attachment had only a buffering effect on symptoms; symptoms among the supported were significantly lower only for individuals under high levels of stress (Biegel et al., Note 1). This presents the possibility that components of social support have differential effects depending on culture, socioeconomic status, age, and other demographic factors.

The preceding epidemiological studies report correlations at only one point in time. Eaton (1978) used panel regression techniques to reanalyze Myers, Lindenthal, and Pepper's (1975) longitudinal survey data on stress, support, and psychiatric symptoms. This statistical procedure allows one to control for the stress and symptom level of respondents at Time 1 and thus see to what extent social support predicts changes in stress or symptom levels at Time 2. Eaton reported that subjects living alone, presumably having less support than those living with a spouse or others, developed significantly more symptoms in response to stress than those living with others. Holahan and Moos (1981) administered two surveys to an adult sample one year apart. With initial levels of support, life change, and psychological maladjustment controlled, decreases in work and family social support were significantly related to increases in symptomatology. Finally, Warheit (1979) held interviews three years apart, and while he found that initial depression scores were the strongest predictor of later depression scores, the presence of a spouse and/or friends was significantly correlated with lower depression scores, especially for people experiencing high life stress. These studies indicate that inadequate

social support *may* lead to increases in psychological disorder, but as Warheit (1979) notes, the interrelationships among stress, support, coping, and symptoms are exceedingly complex.

One issue repeatedly addressed in the literature (e.g., Cobb, 1976; Dean & Lin, 1977; House, 1981) is whether support acts to buffer the effects of stress. Studies on psychosomatic illness report such an effect. For individuals having few "psychosocial assets" and high levels of stress, pregnancy complications (Nuckolls, Cassel, & Kaplan, 1972) and the increased use of anti-asthma medication (de Araujo, Van Arsdel, Holmes, & Dudley, 1973) are dramatically increased. Andrews et al. (1978) and Lin et al. (1979) failed to find such an interaction effect; their findings suggesting that stress and support have independent relationships to psychological disorder. Conflicting findings exist, however. Wilcox (1981) gave a psychiatric symptom questionnaire, a mood scale, a life events inventory, and a support index (including emotional, instrumental, and informational components of support) to 320 Texas residents. He found that a Support X Life Events interaction accounted for more of the variance in symptoms and mood states than either variable alone. And, as mentioned before, Biegel et al. (Note 1) found strong buffering effects for neighborhood attachments among nonethnic, young, and upper SES respondents.

How researchers analyze their data may also influence the reporting of stress-buffering effects. Pinneau (Note 6) reported that, among a large sample of workers, support from supervisors and spouses had main, but not buffering, effects on depression and job strains such as role ambiguity. When this data set was reanalyzed, however, significant buffering effects were found for depression, anxiety, and somatic complaints, but not for job strains (LaRocco et al., 1980; see House [1981] for a discussion of statistical issues). Another part of the problem is the fact that many forms of stress involve the loss of important support resources (divorce, death of a relative). Stress and support may simply be opposite sides of the same coin (Fontana, Dowds, Marcus, & Eisenstadt, Note 7). Only longitudinal research which focuses on changes in the composition and function of support networks following a particular life event and thus separates the effects of stress from those of reduced social support, can illuminate this area (Mueller, 1980). Until then, the evidence for stress-buffering support effects on psychological disorder must be considered inconclusive.

Other, nonepidemiological studies of the general population largely confirm the hypothesis that support is negatively correlated with symptoms. Low levels of support are associated with high trait anxiety (Procidano, Heller, & Swindle, Note 3) and test anxiety (Sarason, 1981) in college students, and maladjustment in inner-city poor children (Sandler, 1980). A related measure, social intimacy, is also associated with positive emotional functioning (Miller & Lefcourt, Note 8).

Only one study (Gad & Johnson, 1980) runs counter to this general pattern. No differences were found in symptomatology based on the amount of support available to urban adolescents. One possible explanation for these contradictory findings is that Gad and Johnson's sample included young adolescents, a population not previously investigated. Perhaps individuals in that age group perceive, report, or utilize support in ways unlike others. In general, despite differences in population and definitions of support and distress, the relationship between a lack of support and psychological problems holds firm.

Having support is one thing; being satisfied with it is another. Support satisfaction and the quality of support received are additional factors with potential relationships to

mental health. Low support satisfaction seems related to increased psychological distress. Barerra & Sandler (Note 2) studied college students and found that low support satisfaction was significantly correlated with three of the four symptom measures they used. Further, the subjects' ratings of the quality of their supportive interactions proved a stronger correlate of psychological health than the quantity of support available. Holahan and Moos (1981) used offshoots of the Work and Family Environment Scales (Moos & Insel, 1974; Moos & Moos, in press) and reported similar results for large samples of middle-aged adults. The perceived cohesiveness and supportiveness of these environments proved to be a more powerful predictor of psychosomatic and depressive symptoms than the quantity of supportive ties. Low satisfaction with support, especially under high stress conditions, is also associated with harsh and restrictive child-rearing (Colletta, 1979), and may be a correlate of child abuse (Garbarino, 1977).

We shall see in the next section that the satisfaction with and quality of social supports are of fundamental importance in understanding support effects.

Studies of People Experiencing Specific Life Stresses

There is a tendency to think that there is one "best" form of support system for all types of stressful life events. But as Walker, MacBride, and Vachon (1977) caution, "a network structure which effectively meets one need may be inappropriate to another" (p. 37). As we shall see, there is evidence to support the truth of this view.

Several correlational studies have examined the relationship between social support and psychological distress in the face of particular life stressors. Gore (1978) reported the effects of support on the physical and mental health of 100 married men whose factory jobs were abolished when two industrial plants were closed. Social support was defined primarily as emotional support, included the perceived supportiveness of wives, friends, and relatives, but also included the degree to which respondents engaged in social activities outside the home. Support from wives proved to be the most important source of support. The unsupported men were more likely than the supported to have elevated physiological signs of stress (e.g., serum cholesterol levels), and were more likely to be depressed throughout the two-year span of the study. The depression finding underscores the association between that disorder and spouse support first described by Brown et al. (1975).

Frydman (1981) found a modest stress-buffering effect for support among parents of chronically ill children. Parents with low support and high life stress reported significantly more psychiatric symptoms than those with low support and low stress on three dependent measures. When support was high, the high stress group reported significantly more symptoms than the low stress group on only one measure. Support, defined as the number of people available to help in a crisis, also showed a direct negative relationship with symptoms.

But before we can assume that emotional or crisis support is generally stress-buffering or health-enhancing, we must examine other stressors and the form which effective support takes in each. It seems that, depending on the situation and desires of the person, support takes different forms. While low density networks are supportive for middle-aged women returning to college (Hirsch, 1980) and single parents who desire to expand their social roles (McLanahan, Wedemeyer, & Adelberg, 1981), high density networks appear to be helpful for 18-year-old freshman women (Leavy, Note 4) and single parents who rely on their family of origin for assistance (McLanahan, Wedemeyer, & Adelberg, 1981). Among first-year graduate students, support (defined as

faculty-student interaction) is associated with relative absence of physical and psychological problems (Goperlud, 1980). When the stressor is teenage pregnancy, support is *positively* correlated with symptoms, while support satisfaction is negatively correlated with depression (Barrera, 1981). The pattern of results, then, is anything but universal.

To best understand the causal influence of social support on mental health, of course, we need experimental designs. Reviewed now are studies which have provided groups of individuals under stress with enhanced social supports and compared them with controls. Two of these intervention studies involved parenting groups for first-time parents. In the first (McGuire & Gottlieb, 1979), support group couples began attending sessions aimed at teaching and discussing childrearing skills approximately 14 months after the birth of their first child. Controls received written educational materials on the same topics. The groups proved to have minimal positive effects on the health or child care problem-solving of the parents. Wandersman, Wandersman, and Kahn (1980) evaluated the effects of parenting groups also. Couples, nonrandomly assigned, participated in groups which gave support and assistance in developing parenting skills. The groups began approximately two months after the child's birth. Post-partum adjustment was not significantly better for the intervention couples than controls. However, self-reported marital emotional support was strongly related to post-partum well-being. Moreover, fathers derived somewhat more benefit from the groups in terms of increased feelings of child care competence, while mothers' adjustment was more related to support from nonmarital sources. From these studies we must assume that, at least in the form here described and with the dependent measures used, parenting groups have little positive effect on coping with transition to parenthood. On the other hand, the notion of fitting support to the person or problem is underscored as is the importance of marital emotional support.

Barrett (1978) assessed the impact of providing supports for people who lost marital ties through the death of a spouse. Seventy widows were assigned to one of four groups: a self-help group in which a therapist helped members to solve one another's adjustment dilemmas (informational support); a confidant group designed to develop friendship pairs (emotional support); a consciousness-raising group in which structured discussions focused on women's issues; and a waiting-list control group. While there were substantial changes in all groups including controls, the consciousness-raising groups were most effective in improving members' health, confidence, and social functioning. Once again, groups designed to provide support failed to be particularly effective in improving individuals' response to stress. Barrett (1978) makes the reasonable suggestion that confidant groups in particular will be effective only with those who have inadequate emotional supports. Apparently, many in this study had already reestablished emotionally supportive relationships in the wake of their widowhood.

Finally, we have an intervention study which examined the relative effects of support quantity versus support quality (Porritt, 1979). In this study of 70 men hospitalized following car accidents, thirty were assigned (nonrandomly) to a group receiving a support intervention. In the intervention, a social worker helped to bolster assistance to the client from employers, friends, and family; encouraged family and friends to maintain contact with the client; helped the client ventilate feelings about the accident and its aftermath; and sometimes mobilized community welfare agents to provide continuing support. Not surprisingly, the intervention subjects felt that their social support was of higher quality than controls not receiving such aid. The intervention subjects also showed better emotional outcome. However, there was no difference in the availability of support

sources for the two groups which led Porritt to conclude that the quality of support is more influential than the quantity of support resources. While this conclusion may be tempting, the study is flawed by numerous methodological limitations: retrospective reports of relevant incidents were taken as much as four months after the event, intervention subjects were not randomly selected, and the social workers varied widely in the number of visits they made to clients. Further, this intervention with highly trained professionals sheds little light on how the quality of naturally occurring support mediates stress. While a more soundly designed study is needed, Porritt's work is a first step in evaluating an effective support intervention effort.

In sum, no clear conclusions regarding the stress-specific nature of supports arise from these studies. While emotional support may be associated with adequate coping in crises as different as parenthood and recovery from injuries, effective support seems to take different guises for different stresses or populations. The inherent differentness of stress situations and population characteristics (Dean & Lin, 1977) makes comparisons across these studies a bit like comparing apples and oranges. Support measures which specifically investigate the role of support in different spheres of coping (Kraus & Perriotta, Note 9) could make comparisons and generalizations more valid. As for the quantity versus quality issues, method problems and difficulties in defining "quality" leave the picture muddy.

Sex Differences in Support

All of the studies which report sex differences in social support involve normal populations. Findings indicate that women tend to have more supportive relationships than men. Middle-aged and elderly women report larger, more intimate, and more stable network ties than same-aged men (Ingersoll & Depner, Note 5). Elderly women are also more likely to have confidant relationships, interactions which appear to be crucial for adaptation in old age (Lowenthal & Haven, 1968). Among adolescents, girls tend to use peer support more than boys (Burke & Weir, 1978), while college women report receiving more social and emotional support than men (Hirsch, 1979). Nevertheless, young women seem less satisfied with their level of supports than young men (Burke & Weir, 1978; Hirsch, 1979).

The sexes seem to differ on the components of support which are associated with emotional well-being. In an epidemiological study of network characteristics (Phillips, 1981), male happiness was best predicted by the size of the social network, and somewhat less by income and the number of areas in which respondents engaged in social activities (e.g., church, work, etc.). Women's happiness was best predicted by the number of activities in which they participated over the preceding three months. Women also had more kin than nonkin network ties. Recognizing the correlational and interactive nature of these findings, Phillips (1981) suggested that traditional sex-role stereotypes may explain these differences. Men may have more work connections and thus more nonkin relationships. How sex roles account for differences in the effects of network size and range of social activities is not yet clear.

Holahan and Moos (1981) also report findings which suggest relationships to sex roles. For men, decreases in work setting support were associated with increases in both depression and psychosomatic symptoms. Decreases in family support were not associated with either form of symptoms. For employed women, decreases in both family and work support were correlated with depression. In unemployed women, family support was negatively correlated with both depression and psychosomatic symptoms. These

results reinforce those reported by LaRocco et al. (1980) and House (1981) concerning the special support function of work environments for men, and the evidence that female depression is related to poor family supports (Brown et al., 1975; Paykel et al., 1980; Roy, 1978).

It is not unexpected that women have more supportive ties, especially intimate and confiding ones. Traditionally, women have been reinforced for placing high value on nurturing family interactions and environments, and lower value on life in the workplace. This raises some interesting questions: does the sex difference in support illustrated in these few studies reflect underlying attitudes about sex-role appropriate behaviors? Are there cohort effects which mirror social changes in the options available to women? Future researchers may want to investigate how traditional and feminist or androgynous persons differ in the support systems they have and desire.

A great deal of work on other fronts remains to be done in this area of personality and demographic differences. If the individual's orientation toward the usefulness of supportive others (Tolsdorf, 1976; Walker, MacBride, & Vachon, 1977) is crucial, we must go beyond studies of the existence or absence of support to explore what aspects of the target person permit or prohibit the use of psychosocial resources. Being socialized as men or women may be one component. Surely others including locus of control and stimulus seeking (Johnson & Sarason, 1979), and interpersonal skills (Mitchell, Note 10) deserve attention.

Summary and Suggestions

Regardless of research methods one finding is consistently reported: the absence of social supports is associated with increased psychological distress. In severe forms of psychopathology such as schizophrenia we frequently find virtually no familial support links, and occasionally no support links of any kind. The pattern is similar but less dramatic for nonpsychotic disorders. In depression, particularly, the lack of a confiding relationship is strongly associated with symptoms. As yet, we cannot assert the minimum number of support ties which correlate with psychological health. In some cases, it appears that one source of emotional support may be necessary (and perhaps sufficient) for coping, while in other cases more supports such as neighborhood attachments are related to well-being.

Evidence shows that network variables other than size are involved in the support-coping phenomenon. The composition of the network may be crucial. Such factors as density, kin-nonkin membership, and the reciprocity of support activities within relationships help to differentiate psychotic from less disturbed populations. Future investigators should examine these and related network characteristics for other groups: high functioning normals, untreated distressed people, people with multiple psychological difficulties, and children, among others.

The type of support people receive is a central factor related to psychological adaptation, too. Emotional support is repeatedly cited in the literature as a correlate of emotional health. Coping with depression, transition to parenthood, work stress, recovery from car accidents, and the aging process are all related to having a confidant. Instrumental, informational, and appraisal supports have roles to play in the process as well. Finally, community attachments may offer a specialized source of support. This seems an especially important source of support for individuals whose identities are closely linked to ethnic origins (Lin et al., 1979; Biegel et al., Note 1).

In addition to the amount and kind of support individuals receive, we must take into account the quality of support. Several studies indicate that the effects of support lie

more in how good it is than how much there is (Porritt, 1979; Barrera, 1981). Certainly dissatisfaction with support correlates with a variety of psychological problems. Perhaps the underlying theme here is that there needs to be a fit between one's expectations and experiences of support in order for support to assist in the coping process. Rather than assuming there is one ideal type of support, we should include research and clinical respondents in the process of discovering what *for them* is "high quality" support. Building on this, future work might fruitfully assess the degree to which the structure and content of support diverges from the individual's ideal. Real-ideal differences may predict and account for psychological distress better than measures of actual support alone.

The hypothesis that support buffers the effects of stress (Cobb, 1976) is a pervasive one in the literature. Unfortunately, there is no conclusive evidence for such an effect. Support sometimes has a direct relationship to symptoms, and sometimes an interactive relationship with stress. This inconsistency of findings may be due to the generally weak psychometric characteristics of current assessment tools, inappropriate data analysis strategies, differences in how support is conceptualized and defined, and variations in sample characteristics which preclude valid comparisons (Mitchell & Trickett, in press).

This brings us to a discussion of the methodological flaws in the literature. Just as reviewers of the stress, support, and physical illness literature (Dohrenwend & Dohrenwend, 1974; Rabkin & Streuning, 1976) have pointed out the psychometric weaknesses in stress and support scales, so must we here. Put succinctly, there is currently no assessment instrument which comprehensively measures the central components of social support with acceptable levels of reliability or validity. Only two investigators in this review (Barrera, 1981; Surtees, 1980) report the test-retest reliability of the indices they used. Most support questionnaires are ad hoc measures with questionable reliability and unknown validity. Obviously, progress in understanding the role of support in relation to stress and disorder is jeopardized if we cannot trust the data we generate. Reliability problems are also an obstacle to comparing and generalizing findings. And without having established empirical links between measures and real-world behaviors, we can hardly use our findings to plan, develop, and evaluate support interventions. This situation is partly a function of the rapid growth of the field. (Of the 46 studies reviewed here, over 80% were done since 1978.) It takes time to test and refine instruments which can adequately measure something as complex as support. Another reason for current psychometric problems is the lack of agreement on how social support should be defined. It will probably be some time before a conceptual consensus evolves to reduce this difficulty, but in the meantime investigators would do well to rid themselves of the circular, nonspecific, or unspecified definitions which are too common in the literature.

Another serious shortcoming in the support literature is the reliance on retrospective designs. While this is unavoidable for some topics—support during unexpected crises, for instance—the overreliance on this design forever leaves researchers at the correlational level of inference. In addition, retrospective data can be suspected of considerable reporter bias due to selective or deficient memory. This is especially true of clinical populations where inaccuracies may be due to the disorder itself or to a need to explain the development of symptoms as a response to stress or inadequate support (Brown, 1974). It may be cliche for reviewers to extol the virtues of prospective designs, but their strengths are no less true or important. In the few prospective studies described in this paper, severely deficient support predates and may predict symptom development. Although

such efforts are costly and difficult, additional information on the temporal relation between support and disorder is needed.

Longitudinal research would be particularly helpful. It is quite unlikely that the structure and substance of support systems are solidified at an early age, remaining unchanged by life circumstance. It is more likely that support is in dynamic equilibrium with the social and developmental forces which impinge upon us (McLanahan, Wedemeyer, & Adelberg, 1981; Tamir & Antonucci, 1981). The finding that middle-aged college students may value social networks which are wholly different than those of eighteen-year-olds gives some credence to the notion that one's life stage plays a major role in understanding how support functions. An intriguing question, then, is how patterns of social support and their function differ across the life span (Beals & Antonucci, Note 11; Leavy & Tolsdorf, Note 12). If we take a life-span developmental perspective (Baltes, Reese, & Lippett, 1980) of support system changes, we could assess whatever cohort effects may explain age group differences. Only with combined cross-sectional and longitudinal designs can we learn how support interacts with the person to affect coping across time and circumstance.

Having reviewed the evidence and assessed method problems, it is time to discuss a way in which social support may be usefully conceptualized. This author has come to see support as having two interrelated components which interact with a third. First, support has a *structure*. Fundamentally, support involves the resources that are "out there"—the available links to others and the nature of those linkages. Support structure entails the size, setting, reciprocity, accessibility, and make-up of interpersonal relationships. Second, there is the *content* of support relationships. We need to know not only who is "out there" able to provide help, but what form that help takes. Support interactions appear to be of at least four types: emotional, instrumental, informational, and appraisal (House, 1981). It seems likely that, depending on the challenge one faces and the mastery over stress one seeks, these types have differential effects. Current evidence makes the strongest case for the generalized value of emotional support, but we do not as yet know how other support functions may facilitate coping. Finally, there is a third element which affects the other two: the *process* by which an individual develops, nurtures, and uses supportive ties. No doubt there are many personality characteristics which impede or facilitate the effective use of support. For example, schizophrenics are notably lacking in the resourcefulness needed to initiate social exchanges, a quality which most likely undermines the availability and quality of supports for them (Beels, 1981). Other individuals are adept at knowing when they need help. They initiate and reciprocate supportive interactions with grace, sensitivity, and skill. In other words, the social skills and "network orientations" of individuals serve to extinguish or reinforce the help-giving actions of others. As far as interventions are concerned, it may be unwise to see the "unsupported" as simply people without helping relationships. As Heller notes, ". . . if basic skills needed to access and maintain interpersonal relationships are absent, linking individuals to supportive environments is not likely to succeed without prior programs emphasizing social skills training" (1979, p. 376). Thus, support includes both the *structure* and *content* of helping relationships available in the environment, and the *processes* by which individuals make use of those links. If researchers ignore one or more of these components, the fullness of the social support concept will be lost, and our understanding of a complex human phenomenon will be artificially reduced and distorted.

We now come to a larger issue: the model we use to study the relationships among stress, support, and psychological disorder. To this writer, the complexity of these

relationships is not well served by the traditional cause-and-effect paradigm. Initial models of support (e.g., Cobb, 1976) were rather simple: environmental stressors could be buffered by social supports with the result being diminished symptomatology. While models have become more complex in recent years (Dohrenwend & Dohrenwend, 1981; Warheit, 1979), they remain essentially linear and unidirectional. Stressor initiates support which does or does not modify symptoms. This may be satisfactory if we are interested in single life events and support responses to them. But if we seek to understand the complex system of stress-support-coping relations, "the unidirectional causal model is inappropriate because the ongoing interactive processes of a social network involve feedback" (Wolfe, 1981, p. 174). Difficult as it is to envision, we may need to see the relationships among variables as loops and circles and less as straight lines. This gives added impetus for prospective, longitudinal, and life-span research strategies. If we wish to do research which has fidelity to real-world phenomena, we must examine the *sequences* of stress, support, and coping behaviors across time and setting.

Finally, we must attend to the prospect that social support will be conceptualized as one more "person" variable related to disorder. Social support is an issue at the heart of community psychology (Kelly, Snowden, & Muñoz, 1977; Sarason, 1976); it is an environmental factor which interacts with an individual to provide strength, competence, and a sense of belonging. Rather than seeing support from an individual/deficit perspective (Rappaport, 1977), and designing studies to fit that vision, future investigators should focus on how families, organizations, and whole communities provide a spectrum of supportive resources to individuals. Support interventions for individuals are certainly desirable (Garrison, 1978; Speck & Attneave, 1973), but for community psychologists it is even more desirable that we take information about social support and design preventive interventions which increase the competence of large populations. As the foregoing review has shown, it is now rather clear that the absence of certain kinds of supports is associated with psychological disorder. The next steps are to refine and expand this knowledge with the goal of improving the structure and content of informal supports and the processes by which they are used.

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