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Comfort and Conflict in the Relationships of Pregnant, Minority Adolescents: Social Support as a Moderator of Social Strain

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Although there is growing recognition that social strain can be a source of considerable distress, few studies to date have examined the ways in which social support may moderate social strain. In this study, social strain was conceived of as a stressor in its own right, whose adverse effects were expected to be alleviated by social support. Participants were 157 pregnant, minority teenagers, all of whom were attending an alternative school for pregnant students. Life events and social strain were positively related to depression. In addition, a significant interaction between social strain and cognitive guidance was found. The pattern of findings suggests that cognitive guidance may intervene between the experience of problematic social exchanges and the onset of depression. Implications of these findings for future research and intervention are discussed.

Although researchers have long acknowledged the protective influence of social support, there is growing recognition that relationships can be a source of considerable distress (Rook, 1990, 1992). Unmet expectations, conflict, criticism, and myriad other interpersonal problems can have profound adverse effects on individuals' psychological functioning. In fact, some researchers have argued that adjustment to life stress may actually be more strongly influenced by social strain than by the positive aspects of social support (Fiore, Becker, & Coppel, 1983; Rook, 1984, 1990). Social strain has also been found to be more disruptive than other, noninterpersonal sources of stress (Bolger, DeLongis, Kessler, & Schilling, 1989; McGonagle & Kessler, 1990).

In light of these findings, researchers are beginning to consider the influence of social strain and social support on individuals' emotional and physical health. Several studies have investigated the influence of social strain on coping efforts (e.g., Manne & Zautra, 1989; Pagel, Erdly, & Becker, 1987), as well as the relative effects of social strain and support on psychological functioning (e.g., Kiecolt-Glaser, Dyer, & Shuttleworth, 1988; Rook, 1984).

In addition, researchers have become increasingly interested in understanding the ways in which social support and social strain may interact with one another to influence psychological functioning (Barrera, Chassin, & Rogosch, 1993). It is possible, for example, that social strain may neutralize the positive effects of social support (Barrera & Baca, 1990) or exacerbate the negative effects of stress (Shinn, Lehmann, & Wong,

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1984). More helpful and satisfying social ties may set the stage for higher levels of distress when problematic social exchanges occur (Pagel et al., 1987), or attentuate the negative effects of social strain (Schuster, Kessler, & Aseltine, 1990). This attenuating influence is analogous to the "buffering effect" model, in that social support is assumed to moderate the effects of stress on psychological well-being. In contrast to past models, however, social strain is conceived of as a stressor in its own right, whose adverse effects may be alleviated by support.

In this study, we examine the associations among social strain, life stress, social support, and well-being in a sample of pregnant, minority adolescents. Pregnancy represents a major developmental transition for all women, but it is particularly salient for adolescents (Brown, Adams, & Kellam, 1981; Ketterlinus, Lamb, & Nitz, 1991). At the same time that they are struggling with their new roles and responsibilities, pregnant adolescents are typically coping with profound developmental changes. Adolescence brings about physical, emotional, and cognitive changes that can strongly influence an individuals' feelings, thoughts, and actions. Adolescents become less psychologically and socially dependent on their parents and begin to spend increasing amounts of time with their peers (Grotevant & Cooper, 1986; Youniss & Smollar, 1985).

The dual transitions of pregnancy and adolescence may conflict with one another and impede the completion of psychological tasks, identity formation, and individuation (Hardy & Zabin, 1991; Ketterlinus et al., 1991). For example, although the adolescent may desire greater autonomy from her parents, her circumstances may render her more dependent on them. These conflicting needs can lead to considerable tension and conflict. Pregnant adolescents often feel that their mothers and other network members are overly judgmental and intrusive (Belle, 1981; Oyserman, Radin, & Benn, 1993). Likewise, many pregnant adolescents report heightened problems in their peer relationships, such as embarrassment over physical changes and difficulties balancing and negotiating competing family and peer demands (Hardy & Zabin, 1991).

Taken together, a picture emerges of a young woman who is struggling to cope with multiple developmental and interpersonal transitions. Young women of color often face additional adversities stemming from racial oppression and economic hardship (McLoyd, 1990). Such stressors may intensify relationship problems, increasing a young woman's sense of dependence on others and her vulnerability to other stressors (Dressler, 1985; Rhodes, Ebert, & Meyers, in press).

This study was designed to assess the extent to which pregnant, minority teenagers' support network members were the source of interpersonal problems, including criticism, intrusiveness, conflict, and disappointment. In addition to relating support, social strain, and life events, respectively, to depression levels, the interaction of these variables was examined. Both social strain and life events were expected to have a negative influence on the young women's psychological functioning, and these effects were expected to be attenuated by social support.

Method

Participants

Participants were 157 pregnant teenagers between the ages of 11 and 19 (M = 15.82; SD = 1.47). Most (75.8%) were expecting their first baby, while 21.7% already had one child, and 2.5% had two children. The mean month of pregnancy was 6.2 (SD = 1.75).

Most (93%) of the participants were African Americans (N = 146), and the remaining were Latinas (N = 10) or biracial (N = 1). None were married, and over 60% of the participants were receiving welfare benefits.

Procedure

Participants were recruited from an alternative school for pregnant students, located in an inner-city neighborhood of a large, midwestern city. An attempt was made to interview every student who was enrolled in the school during the 1992–93 academic year. A female, African-American research associate met with the students and their parent(s) during an intake interview and explained the procedures of the study. The students and their parents were told that participation was voluntary, that information was confidential, and that they would receive $10 for their involvement. Most (94%) of the students who were contacted agreed to participate in the study, and the informed consent of the students and their parents was obtained. The interviews lasted approximately 2-hours and were conducted at the school. African-American students and the biracial student were interviewed by a female, African-American research associate. Latina students were interviewed by a female, Latina research associate.

Measures

Depression

The 13-item depression subscale of the Symptom Checklist 90-R (SCL-90-R) was used. Participants were asked to rate the frequency with which they experienced a range of depressive symptoms using a 5-point scale (Derogatis, 1983), ranging from 1 ("not at all") to 5 ("extremely"). The Depression scale had a relatively high internal consistency in our sample (alpha = .87). The scale had a mean total score of 25.79 (SD = 9.49) and a mean item score of 1.98 (SD = 1.06), which corresponds to a T score of 52 in a normative sample of female adolescents (Derogatis, 1983).

Social Support Network Questionnaire (SSNQ)

The SSNQ is a modification and extension of the Arizona Social Support Interview Schedule (ASSIS) (Barrera, 1981). The SSNQ was used to examine four support functions—emotional support, cognitive guidance, tangible assistance, and pregnancy assistance. Participants were asked to nominate individuals from whom each type of support was elicited in the past month and to rate their satisfaction with each type of support.

The measure was also used to assess the problematic aspects of social ties, or social strain. Specifically, from the list of members who were nominated as providing any of the four types of support, participants were asked how often (ranging on a 5-point scale from "never" to "always") each provider could be expected to be a source of criticism (e.g., putting them down), intrusiveness (e.g., intruding into participants' private matters, bossing them around), conflict (e.g., having strong disagreements), and disappointment (e.g., breaking promises, not coming through for them).

Summary variables were created, including: (a) satisfaction with support, (b) amount of support, and (c) social strain. Mean ratings of satisfaction with support were assessed by asking the participants how they felt about the way things went the times that they received each of the four types of support from their various network members (ranging on a 5-point scale from "bad" to "very good"). The amount of support was calculated

as the total number of persons who were nominated as providing any of the four types of support assessed within the past month (each provider was only counted once). The third variable, social strain, consisted of the mean ratings of disappointment, intrusiveness, conflict, and criticism (ranging on a 5-point scale from "never" to "always"). Given that quantitative indices of support, such as network size, rarely show more than weak associations with distress (Fiore et al., 1983; Vaux, 1988), this study focused mainly on the relationship between depression and perceptions of support satisfaction.

Life events. The Life Events Survey (LES) (Sarason, Johnson, & Siegel, 1979) is a 57-item self-report questionnaire adapted from the Schedule of Recent Life Events (Holmes & Rahe, 1967). It assesses the occurrence, impact, and valence of major stressors/life events occurring in the past year (e.g., moving, death of parent). Events are rated on a 5-point scale ranging from -2 to 2 (extremely negative to extremely positive). Life stress consisted of the weighted number of all negatively rated life events.

Background information. A set of fixed-format questions was used to obtain information on participants' age, marital status, number of children, and living arrangements. No differences between the African-American and Latina women on any of these variables, including age, $t(154) = 1.37$, n.s.; marital status (none was married); number of children, $t(154) = .45$, n.s.; or living arrangements, $\chi^2(3) = .35$, n.s.

Results

For purposes of the analyses, stress was defined by the set (social strain + life events), whereas support was defined by (satisfaction with: emotional support + cognitive guidance + tangible assistance + pregnancy support). Following Cohen and Cohen's (1983) proposed methodology for defining interactions between sets of variables, we computed the products of variables across the two sets, yielding a total of eight product variables (e.g., social strain × emotional support). To reduce the potential for multicollinearity, all variables were centered (i.e., put in mean-deviation form) before computing products. After computing the product variables, hierarchical multiple regression analysis was performed, entering all main effect variables in the first step. In the second and third steps, we entered social strain by support and life events by support interactions, respectively.

Descriptive statistics for the uncentered variables are presented in Table 1. Correlations among the main effect predictors and depression are given in Table 2. Social strain, life events, and cognitive guidance correlated significantly with depression. Participants' levels of satisfaction with cognitive guidance, emotional support, tangible assistance, and pregnancy support were uncorrelated with social strain. Results of the hierarchical regression analysis are shown in Table 3. The R-squared statistic increased from .30 to .35, $F(4, 146) = 2.60$, $p < .05$, after adding social strain interactions to the main effects model. The further addition of the life events interactions did not yield a significant increase in R square.

Regression coefficients for the social strain interactions model (Step 2 Model) are presented in Table 4. Social strain, life events, and the social strain by cognitive guidance interaction term had significant effects. Because the effect of social strain is contained in the interaction term, we concentrate on interpreting the life events and social strain

Table 1
Descriptives for Uncentered Variables

Variable	*M*	*(SD)*
Depression	25.79	9.49
Social strain	5.68	1.15
Life events	5.94	4.70
Emotional support	3.27	0.96
Cognitive guidance	3.92	0.76
Tangible support	4.07	0.80
Pregnancy support	4.10	0.86

Table 2
Intercorrelations of the Variables

	Depression	Social strain	Life events	Emotional support	Cognitive guidance	Tangible assistance	Pregnancy assistance
Depression	1.00						
Social strain	.43**	1.00					
Life events	.39**	.29*	1.00				
Emotional support	−.10	.00	−.12	1.00			
Cognitive guidance	−.16*	−.04	−.04	.25**	1.00		
Tangible assistance	.02	−.02	−.07	.26**	.53**	1.00	
Pregnancy assistance	−.07	−.16*	−.03	.31**	.34**	.36**	1.00

*$p < .05$.
**$p < .01$.

Table 3
Hierarchical Regression Analysis

Outcome variable: Depression

Step	Variables entered	Beta		
		r^2	*F* Change	R^2 Change
1	S,L,E,C,T,P	.30	10.65	.30**
2	S × E, S × C, S × T, S × P	.35	2.60	.05*
3	L × E, L × C, L × T, L × P	.37	1.65	.02

Note. S = Strain, L = Life Events, E = Emotional Support, C = Cognitive Guidance, T = Tangible Assistance, P = Pregnancy Assistance.
*$p < .05$.
**$p < .01$.

Table 4
Regression Coefficients for Model at Step 2

Outcome variable: Depression		
Variable	Coefficient	Std Error
Constant	25.90*	0.64
Social strain	2.93**	0.60
Life events	0.56**	0.14
Emotional support	−0.71	0.73
Cognitive guidance	−1.80	1.05
Tangible assistance	1.34	0.99
Pregnancy assistance	−0.05	0.85
Social strain × Emotional support	0.67	0.63
Social strain × Cognitive guidance	−2.41**	0.85
Social strain × Tangible assistance	0.96	0.83
Social strain × Pregnancy assistance	1.09	0.68

*$p < .05$.
**$p < .01$.

by cognitive guidance effects only. To interpret these effects, we first substituted means for the variables with nonsignificant effects[1] into the equation to get:

$$\text{Predicted depression} = 25.71 + 0.56(\text{events}) + 2.93(\text{strain}) - 1.80(\text{cognitive guidance}) - 2.41(\text{strain} \times \text{cognitive guidance}).$$

The variable life events was positively associated with depression, but did not interact with any of the other variables. To interpret the strain by cognitive guidance interaction, we set life events at its mean (which is zero due to the centering), and treated cognitive guidance as the moderator. Then, we rearranged the preceding equation to obtain

$$\text{Predicted depression} = [25.71 - 1.80(\text{cognitive guidance})] + [2.93 - 2.41(\text{cognitive guidance})\ \text{strain}]$$

Following the suggestion of Cohen and Cohen (1983), we evaluated the equation at the mean, one standard deviation below the mean, and one standard deviation above the mean, for cognitive guidance. This technique substitutes means for the variables with nonsignificant effects into the equation and permits an assessment of the associations between social strain and depression at various levels of cognitive guidance. The resulting three linear equations are graphed in Figure 1. The slope of the regression of depression on strain was higher for adolescents with low cognitive guidance than it was for adolescents with higher levels of cognitive guidance.[2]

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[1]Substituting the means of the nonsignificant variables has the effect of slightly modifying the constant.

[2]We conducted post hoc analyses to explore the extent to which the stress-buffering processes varied as a function of participants' age. A median split of the sample resulted in two age groupings—younger adolescents (aged 11-15, $N = 61$) and older adolescents (aged 16-19, $N = 96$). We then repeated the Step 2 model separately for the two groups. Although most coefficients remained essentially unchanged, the stress-buffering effect (satisfaction by cognitive guidance) was significant for the older adolescents, $t(85) = -2.73$, $p < .01$, but not for the younger adolescents, $t(50) = -1.00$, n.s.. This preliminary finding suggests that pregnant adolescents may become better able to benefit from guidance as they mature. Moreover, it underscores the importance of including more comprehensive analyses of age effects in future studies of social support and strain.

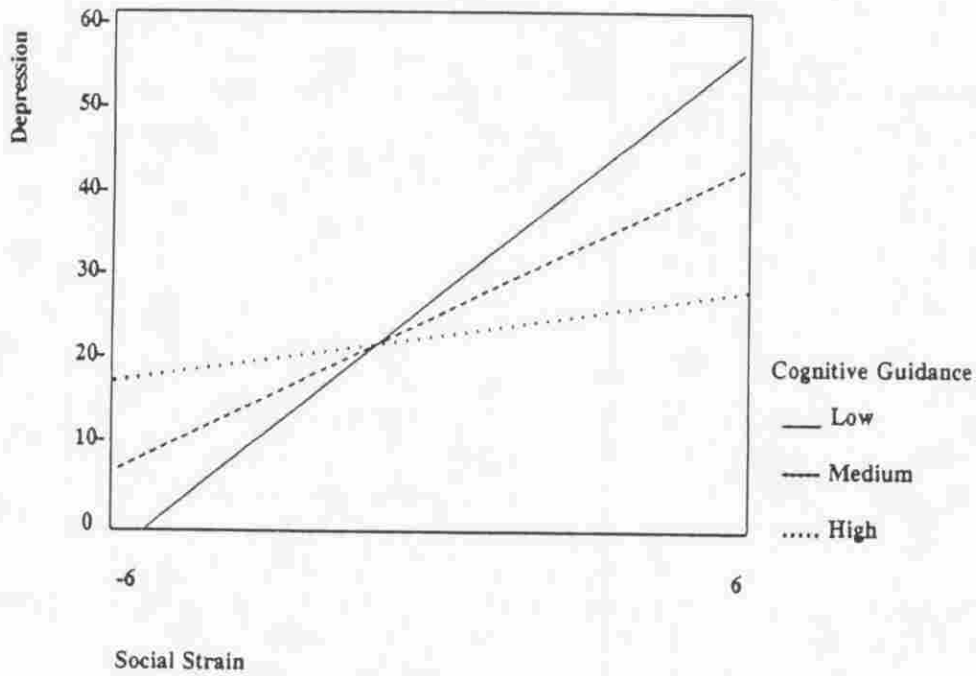

FIGURE 1. Social Strain x Cognitive Guidance Interaction.

Descriptive analyses were then conducted to examine the sources and effects of social strain and cognitive guidance. As shown in Table 5, the participants' mothers ranked highest in terms of criticism, whereas fathers tended to be most intrusive, and male partners ranked highest as sources of conflict and disappointment. More participants obtained cognitive guidance from their mothers than from any other network members. (See Table 6.) Finally, correlation analyses were conducted to examine the associations between depression and social strain in specific role relationships. (See Table 7.) With one exception (depression and problems with best friends), all of the associations were significant.

Table 5
Social Strain Ratings by Provider

Provider	Disappointment *M* (*SD*)	Intrusive *M* (*SD*)	Criticism *M* (*SD*)	Conflict *M* (*SD*)
Mother	1.49 (.74)	1.91 (.90)	1.34 (.68)	1.46 (.74)
Male partner	1.65 (.80)	1.78 (.82)	1.11 (.40)	1.80 (.82)
Grandmother	1.19 (.51)	1.60 (.81)	1.10 (.36)	1.17 (.46)
Best friend	1.34 (.59)	1.40 (.70)	1.05 (.21)	1.23 (.48)
Father	1.63 (.80)	2.22 (.87)	1.30 (.66)	1.65 (.87)
Male partner's mother	1.47 (.74)	1.47 (.83)	1.13 (.52)	1.20 (.56)

Table 6
Amount of Cognitive Guidance by Provider

Provider	Provider *n*	Amount of cognitive guidance %
Mother	101	64.3
Male partner	52	33.1
Grandmother	40	25.5
Best friend	33	21.0
Father	24	15.2
Male partner's mother	7	4.5

Table 7
Correlations Between Depression and Social Strain by Provider

Provider	Correlation
Mother	.47**
Male partner	.25*
Grandmother	.51**
Best friend	.07
Father	.30*
Male partner's mother	.73**

*$p < .05$.
**$p < .01$.

Discussion

The results of this study underscore the importance of considering social strain as a stressor in its own right. Social strain in relationships was highly correlated with depression, accounting for variance beyond that accounted for by life events. Moreover, the interaction between social support and social strain suggested that cognitive guidance may have intervened between the experience of problematic social exchanges and the onset of depression.

In addition to the focus on pregnant, minority teenagers, this study contributes to previous studies in its more differentiated assessment of social support and strain. Whereas past studies have tended to include overall measures of support in analyses of interaction effects, this study examined the distinct contribution of each type of support. In addition, previous studies of social strain have included a more limited range of problematic social interactions (i.e., single-item measures of conflict) and/or items containing a conceptual overlap between problems and negative responses to them (i.e., upset, anger, tension) (Barrera et al., 1993; Rook, 1990).

Satisfaction with emotional support, pregnancy assistance, and tangible assistance did not have the same buffering effects on social strain. It is possible that, in aggregating the measures of support and strain across providers, interaction effects within particular relationships were obscured (Barrera et al., 1993). Limitations in our measurement of support and strain may also have restricted the statistical power of the interaction tests

(Aiken & West, 1991). It should be noted, however, that our findings are consistent with previous studies. In his studies of both young widows and mature women, Hirsch (1980) found that satisfaction with cognitive guidance was the only support category that significantly related to fewer psychiatric symptoms and better mood ratings. Additionally, Fiore et al. (1983) found that upset in cognitive guidance had the strongest relation to depression.

Cognitive guidance was defined in this study as advice or information about how to do something or where to get something. Such support may have helped the young women to identify resources and to better understand and cope with complex and often ambiguous interpersonal problems. The guidance that was provided within certain less problematic relationships in the young women's networks (e.g., with grandparents), may have been particularly important in this regard. Indeed, Simmons and Blythe (1987) have argued that if an adolescent is comfortable in the context of some role relationships, then discomfort in others can be better tolerated and mastered. Such relationships, or "arenas of comfort," may provide a context for adolescents to withdraw, obtain guidance, and become revitalized in the face of social strain (Simmons & Blythe, 1987). It is also possible that, within the same relationship, guidance and strain may interact with one another.

Once the strain by support interaction effect was accounted for, the events by support interaction did not explain any additional variance in depression. This pattern of results may relate to the differing characteristics of social strain versus life events. Interpersonal stressors tend to be more chronic and predictive of adjustment than acute, episodic events (Avison & Turner, 1988; Eckenrode, 1983; McGonagle & Kessler, 1990; Mitchell, Cronkite, & Moos, 1983). Moreover social strain may, by its very nature, lend itself more to action, negotiation, and the support and guidance of others (Folkman & Lazarus, 1980).

Of course, in the absence of longitudinal data, it is impossible to be entirely certain of the direction of these associations. It could be reasonably argued, for instance, that social strain was the result rather than the cause of psychological distress (Rook, 1984). Alternative interpretations of the associations between social support and social strain could also be made. Specifically, it could be aruged that the same factors that led to low levels of support also led to high levels of conflict. The findings of this and other studies (Pagel et al., 1987; Rook, 1984; Shinn et al., 1984) do not support this contention. Rather than being inversely related, social strain was unrelated to participants' satisfaction with cognitive guidance, tangible assistance, emotional support, or pregnancy assistance. Finally, some response biases may have resulted from our reliance on self-report data. Those women who were more willing to report problems in their relationships may have also been more willing to report psychological distress. Future research in this area should include multiple assessments of adolescents' relationships (e.g., observations, network members' ratings) and psychological functioning.

Future studies in this field should also attempt to include more comprehensive, validated indices of social strain. Attempts should be made to include additional categories of negative interpersonal exchanges, to derive the validity of these distinct categories, and to examine their linkages with specific outcomes. It will also be important to determine whether the findings of this study generalize to other groups of individuals. Previous studies have demonstrated that the associations between social support and psychological well-being vary as a function of the individuals' personal, educational, and economic resources (Eckenrode, 1983; Hobfoll & Lilly, 1993; Riley &

Eckenrode, 1986; Vaux, 1988). The results may have been strongly influenced by the characteristics and circumstances of the low-income, pregnant, minority teenagers in this study. The young women were coping with profound developmental and family transitions, as well as stressors stemming from their transition to an alternative school. Although such settings offer support and specialized assistance to young women, enrollment in an alternative school carries its own set of stressors. Students may feel isolated from their peers and may have difficulty adjusting to a new social and academic climate (Zellman, 1982). Future research should examine the extent to which these results generalize to pregnant adolescents who have not sought out an alternative school context. Given that the meaning and demands of pregnancy may be different for younger versus older adolescents (Hamburg, 1986), it will also be important to consider systematically the participants' age ranges.

In addition to stimulating further research, these findings have implications for interventions with pregnant teens. For example, volunteer mentors and other sources of support might serve an important role in buffering the harmful effects of social strain. Such providers could offer guidance to the teens and help them to develop strategies for minimizing the escalation of problematic social exchanges. This, in turn, might offset the effects of social strain and lead to improvements in the psychological adjustment of pregnant teenagers.

References

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions.* New York: Sage.

Avison, W. R., & Turner, R. J. (1988). Stressful life events and depressive symptoms: Disaggregating the effects of acute stressors and chronic strains. *Journal of Health and Social Behavior, 29,* 253-364.

Barrera, M. (1981). Social support in the adjustment of pregnant adolescents. In B. H. Gottlieb (Ed.), *Social network and social support.* Bevery Hills, CA: Sage.

Barrera, M., & Baca, L. M. (1990). Recipient reactions to social support: Contributions of enacted support, conflicted support and network orientation. *Journal of Social and Personal Relationships, 7,* 541-551.

Barrera, M., Chassin, L., & Rogosch, F. (1993). Effects of social support and conflict on adolescent children of alcoholic and nonalcoholic fathers. *Journal of Personality and Social Psychology, 64,* 602-612.

Belle, D. (1981). *The social network as a source of both stress and support to low-income mothers.* Paper presented at the Biennial Meeting of the Society for Research in Child Development, Boston, MA.

Bolger, N., DeLongis, A., Kesler, R. C., & Schilling, E. C. (1989). Effects of daily stress on mood. *Journal of Personality and Social Psychology, 5,* 808-818.

Brown, H., Adams, R., & Kellam, S. (1981). A longitudinal study of teenage motherhood and symptoms of distress: The Woodlawn community epidemiology project. In R. G. Simmons (Ed.), *Research in community mental health.* New York: JAI Press.

Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.

Derogatis, L. R. (1983). *SCL-90-R: Administration, scoring, and procedures manual-I for the R version.* Baltimore: Author.

Dressler, W. W. (1985). Extended family relationships, social support, and mental health in a southern Black community. *Journal of Health and Social Behavior, 26,* 39-48.

Eckenrode, J. (1983). The mobilization of social supports: Some individual constraints. *American Journal of Community Psychology, 11,* 509-528.

Fiore, J., Becker, J., & Coppel, D. (1983). Social network interactions: A buffer or a stress? *American Journal of Community Psychology, 11,* 423-429.

Folkman, S., & Lazarus, R. S. (1980). Analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior, 21,* 219-239.

Grotevant, H. D., & Cooper, C. R. (1986). Individuation in family relationships. *Human Development, 29,* 82-100.

Hamburg, B. A. (1986). Subsets of adolescent mothers: Developmental, biomedical, and psychosocial issues. In J. B. Lancaster & B. A. Hamburg (Eds.), *School-age pregnancy and parenthood: Biosocial dimensions*. New York: Aldine De Gruyter.

Hardy, J. B., & Zabin, L. S. (1991). *Adolescent pregnancy in an urban environment: Issues, programs, and evaluation*. Washington, DC: The Urban Institute.

Hirsch, B. J. (1980). Natural support systems and coping with major life changes. *American Journal of Community Psychology, 8,* 159-172.

Hobfoll, S. E., & Lilly, R. S. (1993). Resource conservation as a strategy for community psychology. *Journal of Community Psychology, 21,* 128-148.

Holmes, T. H., & Rahe, R. H. (1967). The Social Readjustment Rating Scale. *Journal of Psychosomatic Research, 11,* 213-218.

Ketterlinus, R. D., Lamb, M. E., & Nitz, K. (1991). Developmental and ecological sources of stress among adolescent parents. *Family Relations, 40,* 435-441.

Kiecolt-Glaser, J. K., Dyer, C. S., & Shuttleworth, E. C. (1988). Upsetting social interactions and distress among Alzheimer's disease family care-givers: A replication and extension. *American Journal of Community Psychology, 16,* 825-837.

Manne, S. L., & Zautra, A. J. (1989). Spouse criticism and support: Their association with coping and psychological adjustment among women with rheumatoid arthritis. *Journal of Personality and Social Psychology, 56,* 608-617.

McGonagle, K. A., & Kessler, R. C. (1990). Chronic stress, acute stress, and depressive symptoms. *American Journal of Community Psychology, 18,* 681-706.

McLoyd, V. C. (1990). The impact of economic hardship on black families and children: Psychological distress, parenting, and socioemotional development. *Child Development, 61,* 311-346.

Mitchell, R. E., Cronkite, R. C., & Moos, R. H. (1983). Stress, coping, and depression among married couples. *Journal of Abnormal Psychology, 92,* 433-448.

Oyserman, D., Radin, N., & Benn, R. (1993). Dynamics in a three-generation family: Teens, grandparents, and babies. *Developmental Psychology, 3,* 564-572.

Pagel, M. D., Erdly, W. W., & Becker, J. (1987). Social networks: We get by with (and in spite of) a little help from our friends. *Journal of Personality and Social Psychology, 53,* 793-804.

Rhodes, J. E., Ebert, L., & Meyers, A. B. (in press). Social support, relationship problems, and the psychological functioning of young African American mothers. *Journal of Social and Personal Relationships.*

Riley, D., & Eckenrode, J. (1986). Social ties: Subgroup differences in costs and benefits. *Journal of Personality and Social Psychology, 4,* 770-778.

Rook, K. S. (1984). The negative side of social interaction: Impact on psychological well-being. *Journal of Personality and Social Psychology, 46,* 483-491.

Rook, K. S. (1990). Parallels in the study of social support and social strain. *Journal of Social and Clinical Psychology, 9,* 118-132.

Rook, K. S. (1992). Detrimental aspects of social relationships: Taking stock of an emerging literature. In H. O. F. Veiel & U. Baumann (Eds.), *The meaning and measurement of social support*. New York: Hemisphere.

Sarason, I. G., Johnson, J. H., & Siegel, J. M. (1979). Assessing the impact of life changes: Development of the Life Experiences Survey. In I. G. Sarason & C. D. Spielberger (Eds.), *Stress and anxiety*. New York: John Wiley.

Schuster, T. L., Kessler, R. C., & Aseltine, R. H. (1990). Supportive interactions, negative interactions, and depressed mood. *American Journal of Community Psychology, 18,* 423-437.

Shinn, M., Lehman, S., & Wong, N. W. (1984). Social interaction and social support. *Journal of Social Issues, 40,* 55-76.

Simmons, R. G., & Blythe, D. A. (1987). *Moving into adolescence: The impact of pubertal change and school context*. New York: Aldine.

Vaux, A. (1988). *Social support: Theory, research, and intervention*. New York: Praeger.

Youniss, J., & Smollar, J. (1985). *Adolescent relation with mothers, fathers, and friends*. Chicago: University of Chicago Press.

Zellman, G. L. (1982). Public school programs for adolescent pregnancy and parenthood: An assessment. *Family Planning Perspectives, 14,* 15-22.