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Interpersonal Dysfunction in Depressed Women: Impairments Independent of Depressive Symptoms

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Abstract

Background: The study explored the generality of interpersonal impairments in depressed women and examined the extent of their independence of current depressive episodes or symptoms.

Methods: 812 community women who were formerly depressed, currently depressed, or never depressed were compared on a variety of indices of interpersonal behavior and beliefs. Information was also obtained from their spouses, adolescent children, and raters. Current depressive mood and sociodemographic factors that might affect social functioning were controlled.

Results: Consistent with the hypotheses that interpersonal difficulties are not just consequences of depressive symptoms, formerly but not currently depressed women were significantly more impaired than never-depressed women on nearly all measures. They were less likely to be stably married, had poorer marital satisfaction, reported more spouse coercion and physical injury, had more problematic relationships with their child, friends, and extended family, reported more stressful life events with interpersonal and conflict content, and were more insecure in their beliefs about other people. Their spouses and boyfriends also reported more problems, and were themselves more likely to have diagnosable disorders. However, the groups did not differ in their children's perceptions of maternal warmth or hostility.

Limitations: The cross-sectional design precluded conclusions about the causal direction of the relationship between interpersonal impairment and depressive disorder. Since clinical depression is more often than not followed by subthreshold symptoms that are not captured by standard diagnostic instruments, such symptoms are not easily discernable from preceding or co-existing interpersonal problems. Only women were studied.

Conclusions: Interpersonal impairment is a stable feature of depression, a significant challenge to treatment, and may reflect underlying vulnerability to the onset, and recurrence, of depressive experiences.

Keywords: depression; interpersonal functioning; stable social impairment

1. Introduction

The interpersonal functioning of depressed individuals has often been observed to be impaired, associated with marital conflict and divorce, and problems in parent–child interactions. Overall, the social impact of depression on the person and others is enormous, and treatments may have paid inadequate attention to interpersonal dysfunction in depression (Hirschfeld et al., 2000). Increased scrutiny of interpersonal functioning in depressed individuals is warranted for several reasons. The interpersonal difficulties may be persistent, and recover more slowly than symptom changes (e.g. Tweed, 1993). Such difficulties may contribute to the recurrence of depressive episodes, and may in fact reflect underlying vulnerability factors portending risk for depression (Joiner and Coyne, 1999). Moreover, they may represent one of the mechanisms of intergenerational transmission of depression (Hammen and Brennan, 2001).

One of the first systematic studies of the lives of depressed individuals, Weissman and Paykel's (1974) book, *The Depressed Woman: A Study of Social Relationships*, reported that depressed women commonly have problematic marital and family relationships that persist even when

the women are not experiencing depressive episodes (see also Billings; Hammen and Keitner). Subsequent studies have increasingly identified social difficulties in the lives of depressed people, including divorce, marital disruption, and negative partner interactions (reviewed in Gotlib and Rao). Recent studies of clinical and community samples have documented self-perceived social impairment among depressed people (e.g. Evans; Tweed and Zlotnick). Moreover, there has been an increasing emphasis on interpersonal functioning as a possible vulnerability factor in initial and recurrent depression. For instance, it has been shown that depressed individuals interact maladaptively with others in ways that contribute to the occurrence of interpersonal stressful life events, that in turn may precipitate further depression (Davila and Hammen). Occurrence of such stressors suggests impaired interpersonal skills and dysfunctional cognitions that reflect poor interpersonal problem-solving. Depressed people are often dependent on others, and seek reassurance in ways that distance others (Barnett and Joiner). They may often overvalue relationships as sources of self-worth, but may also have acquired negative beliefs about the availability and trustworthiness of others (Beck and Bowlby).

An additional area of intense study has been the possible role of the quality of relationships between depressed mothers and their children as a contributor to the intergenerational transmission of depression. Dysfunctional interactions between depressed mothers and their infants, toddlers, and school-age children have been extensively documented (reviewed in Cummings; Downey and Kaslow). Lyons-Ruth (1995) observed that in view of the apparent role of dysfunctional parenting and marital problems among depressed women, perhaps it is not depression as such that causes children's negative outcomes. Rather, as she speculated, perhaps the mechanism is 'relational pathology.'

For all of these reasons, it is important to shed further light on issues about interpersonal functioning among depressed individuals. However, there are several conceptual and methodological issues that obscure conclusions about the meaning of results reported to date. One of the unresolved issues is the extent to which social impairments are mood-dependent or whether they are relatively stable features of the individual. The vast majority of studies of social functioning of depressed individuals have focused on *currently* depressed people, whose symptoms would be expected to impair their adjustment in all major roles, including interpersonal. Most of the research demonstrating enduring interpersonal difficulties implies that interpersonal dysfunctions are slower to resolve than depressive symptoms, but that individuals will return to a normal baseline. Or, studies have reported that 'residual' impairments could be related to continuing mild depressive symptoms, but presented analyses that have not controlled for the effects of persisting symptoms. Therefore, it is important to determine whether the interpersonal difficulties are independent of symptoms, examining social functioning during periods of remission and including control for current subsyndromal depressive symptoms.

Another unresolved issue concerns the nature of the interpersonal dysfunction—whether it is specific or general—e.g. whether it applies to relationships with spouses and children, or whether it is more general, and whether it includes both cognitions about relationships and actual behaviors. A related methodological shortcoming of most prior research is that studies have generally been based exclusively on self-report with the potentially biasing effect of current mood (e.g. Evans and Hirschfeld). More research is needed in which functioning measures include interviewer ratings and reports by other observers such as family members. Also, much of the previous research has been based on patient samples that are likely to be more impaired and less representative of depressive disorders as a whole (e.g. Miller et al., 2000). It would be useful to study community samples whose diagnoses and personal circumstances may reflect major depression and dysthymic disorder as they are more commonly represented.

The purpose of the present study, therefore, is to describe a variety of indicators of interpersonal functioning and social characteristics of depressed women, including both currently and formerly depressed, compared with women who have never been depressed. Additionally, the study addresses a number of the methodological limitations of some prior studies: use of a community sample, control for subclinical depressive symptoms as well as sociodemographic factors that might affect social functioning (family income and maternal educational attainment), and inclusion diverse

informants—self, interviewer, spouse, and child. Assessments includes multiple measures across various relationships: marital functioning, relationships with spouse, child, friends, and extended family, as well as interpersonal life events, and interpersonal cognitions (attachment beliefs and expectations, and self-reported symptoms of two dimensions of personality pathology often noted for particularly problematic relationships, dependent and borderline personality disorder). We also present diagnostic evaluations of the husbands based on direct clinical interviews. The sample is restricted to women whose 'target' child is 15 years old, in order to reduce sample variability in terms of contextual factors.

Consistent with a model of 'relational pathology' model of depression, we hypothesize that depression is associated with stable and generalized interpersonal impairments affecting interpersonal behaviors and cognitions. We specifically predict that even when current subclinical symptoms are controlled, formerly (but not currently) depressed women will show more impairment on interpersonal functioning variables compared with never-depressed women. We predict that the impairments will encompass relationships with the child, spouse/partner, friends, and extended family, that women with histories of depressive disorders will have higher rates of interpersonal conflicts reflecting relatively dysfunctional interpersonal conflict resolution skills and relationship representations. Furthermore, we predict that the spouses/partners of depressed women will have higher rates of diagnosable disorders than spouses/partners of nondepressed women.

2. Method

2.1. Participants

The sample consisted of 816 women and their 15-year-old adolescents, and 522 fathers who were available for participation. The sample was selected as described in Hammen and Brennan (2001) from a birth cohort study of children's health and development conducted at Mater Hospital, Brisbane (Queensland), Australia (Keeping et al., 1989). Women had provided depression self-report scales during pregnancy, shortly after birth, child's age 6, and child's age 5. A total of 68% of the original sample was located when the children were age 13, and the current investigators targeted for possible inclusion in the present study women who had varying levels and frequencies of depression scores (or no depression) up to age 5, on the assumption that they would represent varying severities and durations of depressive disorders over the lifetimes of their children. On the basis of scores on those measures, 991 were targeted for inclusion in the present (age 15) study. Of the 991, 816 consented and were included (82%); three families had a child with severe hearing or visual impairment and were not included; one child had died; 103 declined to participate; 68 families could not be located.

The current study consisted of 816 women, their 15-year-old children (414 boys and 402 girls; mean age 15 years, 2 months, S.D.=0.29), and 522 fathers who completed the interviews (an additional 34 completed questionnaires but not interviews). The overall sample was 92% Caucasian, 8% minority (Asian, Pacific Islander, and Aboriginal). Median family income at the 15-year follow-up was AU$35,000–45,000, indicating middle and lower middle class, but with considerable range. Median mothers' education was grade 10 (approximately high school equivalent) with a wide range; mothers' mean age at the time of study was 41 years. In all, 76.8% of the mothers were currently married or cohabiting.

2.2. Procedure

Interviews were conducted in the homes of the families. Interviewers were initially blind to the mother's depression status or history, and a team of two interviewers conducted the parent and child interviews separately and privately. Between interviews, the participants also completed a battery of questionnaires as noted below. The mother, child, and father gave written informed consent (assent), and were paid for their participation, which lasted approximately 3.5 h.

2.2.1. Interviewers

Six advanced graduate students in clinical psychology with prior clinical and research interview experience served as interviewers, and were trained by one of the authors (CH) to conduct the diagnostic evaluations, stress and functioning interviews. They were trained to proficiency, and were closely supervised via audiotape and periodic visits by the investigators. Systematic reviews of samples of interviews were conducted at 6-month intervals over the 3-year course of data collection to prevent drift.

2.3. Assessments

2.3.1. Maternal diagnostic evaluation

Diagnostic information used as a basis for sample characterization in the present study was based on the Structured Clinical Interview for DSM-IV (First et al., 1995), for presence of lifetime and current diagnoses, with careful dating of onsets and episodes. A reliability study based on 52 women rated by independent judges yielded weighted Kappas of 0.87 for current diagnoses of major depressive episode or dysthymic disorder and subsyndromal depression, and 0.84 for past depressive diagnoses or symptoms.

The depressed mother sample consisted of 358 women with current or past major depressive episode (at least one episode) or dysthymic disorder during the child's life. One hundred sixty-four of the women had at least one period of dysthymic disorder, and 271 had at least one MDE (34% of the total had two or more major depressive episodes). All but four of the depressed women were unipolar (two bipolar I and two bipolar II); these four families were excluded from analyses.

The SCID was also administered to the husbands/partners of the women. The Beck Depression Inventory (Beck et al., 1961) was also administered.

2.3.2. SCID-II questionnaire

Two subscales of the SCID-II Questionnaire (Spitzer et al., 1990) were administered; these included the Dependent and Borderline Personality Disorder items. As a personality disorder questionnaire, the instrument has been reported to have moderate test–retest reliability, is not influenced by current mood state, and has good concordance with informant reports in nonclinical samples (Ouimette and Klein, 1995). In the present sample, internal consistency reliability was 0.62 for the nine Dependent items, and 0.79 for the 13 Borderline items.

2.3.3. Episodic stressful life events

A semi-structured interview procedure (Hammen; Hammen and Hammen), modeled after the contextual threat assessment of stressful life events (Brown and Harris, 1978), was administered to the mothers and to the adolescents. Covering the past year, the interview probed the occurrence and dates of specific events, and obtained information about the nature of the event and the circumstances in which it occurred. The interviewer prepared a narrative of each event and presented it to a rating team that was blind to the women's actual reactions to the event. The team rated each event on two five-point scales, *severity* (how much impact the event would have on a typical person under similar conditions), and *independence* (extent to which the event's occurrence was independent or dependent on behaviors or characteristics of the individual). Severity ranged from 1 (no impact) to 5 (extremely severe), and independence ranged from 1 (fateful, entirely independent of the person) to 5 (totally dependent on the individual). Interrater reliabilities based on independent ratings by Australian and US teams for 99 cases yielded intraclass correlations of 0.85 for severity rating and 0.93 for independence.

2.3.4. Chronic stress/role functioning

Hammen et al. (1989) developed and extensively reported an interview to assess ongoing, typical functioning in key role areas. The instrument yields information that is both a measure of chronic stress in these areas, and a measure of current functioning in the past 6 months. The interview includes

semi-structured probes to inquire about a variety of areas of role functioning—e.g. intimate relationships, close friendships, social relationships, work, financial conditions, relationships with family members, personal health, and family health. Each domain is then rated by the interviewer on a five-point scale with *behaviorally specific* anchor points indicating severity of ongoing stressful conditions, ranging from exceptionally good conditions (1) to extreme adversity and impairment (5). For the present analyses, roles pertaining to interpersonal functioning are reported. Interrater reliabilities were based on independent judges' ratings (n=77–100, depending on category). Intraclass correlations are 0.82 for mother–child relationship, 0.88 intimate relationship, 0.82 close friend, and 0.77 extended family relationships. Convergent and construct validation have been obtained in various samples (e.g. Hammen and Rao).

2.3.5. Bartholomew attachment prototypes

The four attachment prototypes (fearful, preoccupied, dismissing, and secure) developed by Bartholomew and Horowitz (1991) were administered, each rated on a seven-point scale ranging from 1 (not at all like me) to 7 (very much like me). Several studies have demonstrated the construct and convergent validity of the prototypes (e.g. Bartholomew and Carnelley).

2.3.6. Dyadic adjustment scale

Items from the Satisfaction subscale of the dyadic adjustment scale (DAS; Spanier, 1976) were administered separately to the mother and father (or current partner). High satisfaction represents low frequency of quarrels, few discussions of separation, and few negative interactions. This subscale has been found to have high levels of reliability and validity, and is useful as a measure of overall relationship quality (Kurdek, 1992).

2.3.7. Conflict tactics scale

Additionally, mothers and fathers completed a self-report version of the modified conflict tactics scale (CTS; Straus, 1979; MCTS; Neidig and Friedman, 1984). In the present study, seven items of psychological or physical coercion were included and scored on a three-point scale (argued heatedly; yelled/insulted; sulked, refused to talk; threw something; pushed, grabbed or shoved partner; tried to hit partner; hit partner).

2.3.8. Child report of mother warmth and hostility

Items on a questionnaire measuring the child's perceptions of the mother's warmth and hostility were scored on seven-point scales (ranging from 'always' to 'never'). The questionnaire was developed by the Iowa Youth and Families Project based on their observational measures of the same constructs (e.g. Ge et al., 1996), with high internal reliability and good correlations with observed parental warmth and hostility. In the present study, the nine-item warmth scale had internal consistency reliability of 0.91, and the 15-item hostility scale had ALPHA=0.92.

3. Results

The following analyses are based on comparisons between 83 women with current unipolar MDE or dysthymic disorder, 271 women who are not currently in a depressive episode but with past histories of MDE or dysthymia, and 458 never-depressed women. Actual analyses may reflect different sample sizes in cases of missing data. Where relevant, comparisons controlled for current depressed mood (BDI score), mothers' educational level, and family income level, as these factors may be associated with social functioning, and differ by group. Table 1 presents means of the groups on demographic and clinical variables.

TABLE 1. Mean demographic characteristics and rates of disorder in husbands by maternal depression group

	Current depression (n = 83)	Past, not current (n = 271)	Never depressed (n = 458)
Family income[a]	2.2 (2.1)	2.8 (2.0)	3.2 (2.0)
Maternal education[b]	4.1 (1.1)	4.2 (1.1)	4.3 (1.1)
BDI score[c]	17.5 (10.0)	7.7 (6.9)	4.7 (5.0)
Current marital status (%)[d]			
Married to child's father	59	55	75
Married—not child's father	21	28	16
Not married	20	17	9
Husband's lifetime SCID diagnosis (%)			
Any[e]	64	46	40
Depressive disorder[f]	45	26	22
Alcohol abuse[g]	23	14	16

Standard deviations in parentheses.
[a] Rating scale; higher is greater income; $F(2,779)=10.57$, $P<0.0001$.
[b] Rating scale; higher is more education; $F(2,804)=1.95$, n.s. but Current and Never groups differ from each other.
[c] F (2,786)=143.2, $P<0.0001$.
[d] 2 Overall χ^2 (4,792)=5.15, $P<0.0001$.
[e] 2 χ^2 (2,522=11.39, $P<0.003$.
[f] 2 χ^2 (2,522)=12.95, $P<0.002$.
[g] 2 χ^2 (2,522)=2.05, ns.

3.1. Marital status, husband diagnoses, and marital adjustment

As shown in Table 1, the women's diagnosis groups differed significantly by marital status, with the never-depressed women more likely to be currently married to the child's biological father and less likely to be single, compared with the depression groups. The marital statuses of the women with past depression did not appear to differ from those of women with current depression, and represented lower rates of stable marriage compared to the never-depressed women.

The lower part of Table 1 also indicates the lifetime rates of disorder based on husbands' SCID interviews. Overall, the groups differed significantly on presence of any disorder, and specifically on depressive disorder (major depressive episode or dysthymic disorder). In this instance, the past- and never-depressed groups resembled each other, with lower rates of any disorder or depressive disorders compared with currently depressed women. However, the groups overall did not differ on history of alcohol use disorders.

Next, reports of marital satisfaction by the mother and her husband are reported in Table 2 (means adjusted for covariates). Analyses of covariance with planned comparisons between the past-depression and never-depressed groups were conducted on all the variables with covariates as noted. Despite relatively greater marital satisfaction compared to the currently depressed women, the past-depressed group reported significantly less marital satisfaction compared to the never-depressed group. The effects were significant for the husbands' reports, and marginally significant for the wives' reports (two-tailed). Regarding reports of coercive conflict resolution tactics by the partner, both husbands and their wives reported significantly more negative tactics by the other in the past-depression group compared with the never-depressed group.

TABLE 2. Adjusted means of mother, partner, and child reports of relationship quality by maternal depression group

	Current depression	Past, not current	Never depressed
Marital relationship			
Mother report of marital satisfaction	32.91 (4.39)	34.41 (3.85)	34.98[b] (3.98)
Husband report of marital satisfaction	34.30 (4.23)	34.65 (3.68)	35.50[a] (3.80)
Mother report of coercive tactics	9.81 (2.13)	9.66 (1.87)	9.31[a] (1.93)
Husband report of coercive tactics	9.88 (2.00)	9.97 (1.75)	9.57[a] (1.81)
Mother report of injury by husband	7.7%	5.1%	2.4%[c]
Child report			
Maternal warmth	27.03 (12.65)	27.08 (11.14)	27.75 (11.57)
Maternal hostility	83.42 (15.83)	85.73 (13.94)	86.20 (14.50)

Higher scores represent greater satisfaction, more coercion by partner. Higher scores by child report represent less warmth, less hostility.
Standard deviations in parentheses.
[a] Planned comparison between Past and Never Depressed, $P<0.05$, two-tailed.
[b] Planned comparison, $P<0.05$, one-tailed.
[c] Chi-square $P=0.055$, two-tailed.

Women had also been asked if they have been physically injured, needed medical attention, or called the police following a marital dispute with husband or boyfriend in the past 12 months. Currently depressed women said yes to one or more of these questions at the rate of 7.7%, compared with 5.1% among past-depressed women, and 2.4% among never-depressed women, χ^2 (2, 691)=5.81, $P=0.055$.

TABLE 3. Adjusted mean social functioning and stressor scores by maternal depression group

	Current depression	Past, not current	Never depressed
Relationship functioning			
Intimate relationship	2.78 (0.77)	2.60 (0.67)	2.36[a] (0.69)
Child	2.43 (0.54)	2.28 (0.48)	2.15[a] (0.50)
Close Friendship	2.49 (0.86)	2.45 (0.75)	2.32[a] (0.78)
Parents, siblings	2.77 (0.83)	2.87 (0.74)	2.51[a] (0.76)
# Stressful events			
Interpersonal	1.09 (1.22)	0.95 (1.07)	0.67[a] (1.11)
Conflict	0.45 (0.72)	0.43 (0.62)	0.22[a] (0.65)

Relationship functioning: Higher scores represent worse functioning. Standard deviations in parentheses.
[a] Planned comparison between Past and Never Depressed, $P<0.05$.

In contrast to the relatively negative reports by the husbands of formerly-depressed compared to never-depressed women, analyses of covariance on ratings by the children of mothers in the three

groups did not differ overall in youth reports of maternal warmth or hostile parent–child behaviors. There was a tendency for the never-depressed group to be seen as displaying less hostility toward the youth compared to the other groups, but the effect was nonsignificant.

3.2. Women's functioning in close relationships

Means of interviewer-rated functioning in interpersonal roles, adjusted for the covariates, are presented in Table 3. Higher scores indicate more problems, and reflect a consistent pattern (except for relationships with own parents and siblings) of currently depressed women having worse interpersonal difficulties, never-depressed the best, and formerly depressed women in between. Multivariate contrasts between never- and past-depressed women, controlling for current symptoms and sociodemographic factors, were significant in all cases as indicated.

A further aspect of interpersonal functioning is frequency in the past year of stressful life events in the social domain, and its subcategory, conflict events. As shown in the lower part of Table 3, the planned contrasts indicate the predicted significant difference between the past-depressed and never-depressed women.

3.3. Women's reports of interpersonal attitudes and personality attributes

Multivariate tests on the four Bartholomew attachment prototypes, controlling for the covariates, indicated overall significant differences among the groups. Specifically, the planned comparisons between the never-depressed and the past-depressed women indicated that the latter were less *secure* (means=5.01, 4.76, respectively; P=0.06, two-tailed) and more *fearful* of abandonment (means=2.64, 3.25, P<0.0001). The planned comparisons indicated that these two groups did not differ significantly on dimensions of preoccupied or dismissive attachment attitudes. Comparisons between current and formerly depressed women revealed no statistically significant differences in attachment representations.

Analyses were conducted on two self-reported scores on Axis II scales often associated with interpersonal dysfunction in depressed patients: Dependent and Borderline behaviors and attitudes. Dependent symptom means were 2.21, 1.95, and 1.69 in the current, past, and never-depressed groups, respectively, and the planned contrast between the latter two groups indicated a statistically significant difference, P=0.03. Borderline symptom means were 2.78, 3.01, and 2.46 in current, past, and never-depressed groups, respectively. The planned comparison between the past-depressed and never-depressed groups was significant, P=0.002.

3.4. Additional analyses by clinical status

Among *currently* depressed women, exploratory analyses were conducted to examine differences between those with MDE only (n=36) and dysthymia only (n=38) (four 'double depression' women were excluded due to the small sample). Across all variables reported in Table 2 and Table 3 plus attachment prototypes, there were 4 significant differences: functioning in friendships and relations with extended family, attachment security, and partner report of marital satisfaction. In all instances, the currently dysthymic women functioned worse. No other differences were significant.

Among formerly depressed women, analyses were conducted among those who had been depressed more recently or not (operationally defined as within the past 5 years). Across all comparisons, only three were significant: women with no depressive diagnoses in the past 5 years (n=112) had higher security of attachment scores, reported less coercive conflict tactics by their partners, and were seen as having better functioning in their marital/intimate relationship, compared with more recently, but not currently, depressed women (n=161). Also, analyses were conducted on possible associations among chronicity of depression and current social functioning. Correlations were computed between an index of depression chronicity—number of months in the past 15 years of the study during which women had a diagnosis of MDE, minor depression, or dysthymic disorder—and

each of the variables previously in Table 2 and Table 3 and the attachment measures. Only one significant correlation was seen, between months of depression and poorer quality of relationship with extended family, r=0.198, P<0.001.

Finally, the role of Axis I comorbidity was examined for its possible role in the social impairment of *formerly but not currently depressed women.* Within this group, women with any current or past substance abuse (n=13), eating disorders (n=11), or anxiety disorders (n=62) were compared on all the social functioning variables with those who did not have a comorbid condition (n=190). Only two variables revealed significant differences: women with comorbid disorders reported significantly more partner use of coercive conflict tactics and more partner physical coercion; there was a near significant trend for women with comorbid disorders to report less marital satisfaction.

4. Discussion

The present study undertook a multifaceted analysis of interpersonal functioning in women with major depressive disorder or dysthymia. Results were consistent with a view that depression may be associated with stable and generalized interpersonal difficulties, such that even when not currently in a depressive episode and controlling for subclinical symptoms, formerly depressed women displayed enduring dysfunctions in relational skills and cognitive representations of relationships. Compared with never-depressed women, formerly depressed women were rated by interviewers as having significantly more dysfunctional relationships with friends, spouses, children, and extended family (parents and siblings). They reported more recent stressful life events with an interpersonal content, and had relatively high rates of events with a conflict theme. The women acknowledged less secure attachment representations of relationships, and reported more dependent and borderline personality traits. Current and past depressed women were less likely to be stably married, and if currently married, had spouses who themselves were more likely to have diagnosable disorders. The formerly depressed women and their current partners reported a variety of indicators of relatively negative functioning in their relationships. Only one nonsignificant result was obtained: ratings by the children of mothers' warmth and hostility did not differ across groups.

Exploratory analyses of the association between clinical features of depression and interpersonal functioning revealed a few trends warranting further study. Among formerly depressed women, duration of past depression, and whether the women had been depressed in the past 5 years, were largely unrelated to current functioning. Among currently depressed women, those with dysthymic disorder and major depressive episode did not differ except on a few variables, in which cases the dysthymic women functioned more negatively. Also, for the most part, social functioning among the past-depressed women was unrelated to Axis I comorbidity. Overall, these findings suggest that something other than features of the clinical state predicted enduring interpersonal dysfunction among formerly depressed women. However, these conclusions are tentative and require further research.

Although we speculate that indicators of 'relational pathology' may put women at risk for the development of depression, the cross-sectional nature of the study made it impossible to evaluate the role of interpersonal behaviors and beliefs as vulnerability factors. However, we do plan to investigate a corollary of this perspective: interpersonal difficulties contribute to risk for *recurrent* depression. In a follow-up phase of the study currently underway, the clinical courses of women with relatively more or less interpersonal dysfunction will be evaluated.

A further implication of the findings applies to the potential mechanisms of intergenerational transmission of depressive disorders. The present results suggest that children may inherit (in addition to genetic vulnerability to depression) a family environment in which they experience and witness a variety of potentially maladaptive interpersonal problem-solving skills and relationship attitudes modeled by their mother in her dealings with them and with her social milieu. Many studies have suggested that parenting difficulties mediate the effects of parental depression on children's outcomes (e.g. Cummings; Downey and Kaslow). Further research is needed to determine more specifically the nature of interpersonal difficulties and the mechanisms by which various relational problems confer

risk to the children. Recently, in analyses of depressive disorders in the children of the sample, we demonstrated that depressed youth of depressed mothers were themselves significantly more interpersonally impaired than depressed youth of nondepressed mothers (Hammen and Brennan, 2001).

The results also serve to replicate the 'stress generation' pattern observed in unipolar depressed women (Hammen, 1991a) compared to nondepressed women. Even in a community sample with presumably less severe disorder and life problems, it appears that some enduring characteristics of depressive women may contribute to the occurrence of (or failure to prevent) stressful life events in the social domain. Such events, when they exceed a critical level, in turn may provoke depressive reactions, and thereby help to perpetuate the cycles of depression. It may be speculated that these patterns result not only from maladaptive skills and schemas about the self and others, but also from the life contexts of the depressed women that may create the potential for stressful interchanges with others. Having children with disorders, or having married men with psychological difficulties (nonrandom mating), for instance, create contexts that contribute to repetitions of conflict and malfunctioning.

A number of additional questions remain to be addressed in future studies. Among them are whether currently and formerly depressed men also display interpersonal dysfunctions to the same extent as depressed women; whether subtypes of depressive disorder and vulnerability differentially reflect relational dysfunctions; whether such interpersonal problems are specific to those with depressive disorders.

Limitations of the current study include the cross-sectional design, making it impossible to determine the causal sequence among depressive disorders and development of interpersonal difficulties, and a somewhat homogeneous demographic sample of female, Caucasian, middle and working class families. Also, due to the nature of family visits that included interviews with youth, mothers, and fathers, we lacked resources to ensure blind evaluations of maternal diagnostic status and functioning in various roles. The social functioning interviews were rated on behaviorally specific scales, and interviewers were unaware of the hypotheses tested in the present study. Nonetheless, the possible influence of nonblind evaluations is acknowledged. Also, many of the variables were somewhat general in nature, making it difficult to characterize specific qualities of the depressed women that may have contributed to their relative deficits in social functioning. Presently, we have no way to characterize different relational patterns in the current sample. Furthermore, although the generation of episodic stress and the partner reports of coercive conflict tactics would seem to imply deficiencies in interpersonal negotiation strategies, we had no direct measure of social problem-solving skills as such. Also, of course, the woman's difficulties with spouses, adolescent children, and extended family must not obscure the potential role of others in contributing to the women's social problems that were observed.

One word of caution regarding the interpretation of the independence of depressive symptoms and interpersonal impairment pertaining to the nature of depressive disorder from a longitudinal perspective: New data support the notion that depression is a chronic process, manifested primarily by subthreshold symptomatology over time (Judd and Judd). Since such symptoms are inadequately represented in formal diagnostic instruments, it is extremely difficult to establish that interpersonal dysfunction in previously depressed individuals is independent from current low-level depression which is undetected. This is not to say that interpersonal dysfunction is epiphenomenal, but to point to the difficulty of empirical differentiation from subclinical affective disorder.

The current results paint a picture of significant and generalized impairment in interpersonal functioning in families of depressed women—even when they are not currently in depressive episodes. The findings support the emerging perspective on depression that emphasizes its interpersonal nature. The data suggest that treatment efforts that mainly resolve current symptoms may not be sufficient to address the distress experienced by the depressed person and her family. Treatments need to assist depressed women in dealing with their social milieu, and potentially be extended to the partners and children who may contribute to the difficulties in interpersonal functioning, and measures of social

functioning need to be included as outcome measures in treatment studies (Hirschfeld and Weissman).

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