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The Treatment of Clinical Depression
In the Context of Marital Distress

Andre Dessaulles

Thesis submitted to the
School of Graduate Studies and Research
in partial fulfillment of the requirements for the degree of

Doctor of Philosophy
in
Clinical Psychology

University of Ottawa



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DEDICATION

This dissertation is dedicated to
my mother, Bibbi,
and to the memory of my father, Pierre

Cottleston, Cottleston, Cottleston Pie,
A fly can't bird, but a bird can fly,
A fish can't whistle and neither can I,
Why does a chicken, I don't know why,
Ask me a riddle and I reply:
Cottleston, Cottleston, Cottleston Pie.

A. A. Milne

Every turn of the road
Brought me new thoughts
And every sunrise
Gave me fresh emotions

Basho

Give up learning
And put an end to your troubles

Lao Tsu

Life is what happens to you
When you're busy making other plans

John Lennon

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Well, being on the other side of this thesis certainly gives one a different perspective. At some point, long ago, Sue Johnson and I had a chat in a hallway about couples and depression. This project is the end result of that conversation. Sue has been a tremendous source of support and encouragement and I have benefited immensely from knowing her. As cliché as it may seem, this research happened because a special group of people (about 17 in all) got together and made it work. The therapists were outstanding in their commitment to the project and produced some remarkable therapy sessions. Sharon Kennedy was an ideal research assistant. I want to thank Steve Hotz for the orientation to the politics of research, and the Ontario Ministry of Health for the financial assistance in gathering some of the data. Thanks to Rick and Irit for screening 249 couples, and thanks to Brenda and Mickie for their work with the implementation checks. Very importantly, I want to thank Nancy for putting-up with me and being so incredibly loving and understanding. And, of course, my mom has been a terrific support for me; she always believed in me and was sure I could do it. She was right.

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ABSTRACT

A total of 18 maritally-distressed couples, in which the female partner met diagnostic criteria for moderately severe clinical depression, were randomly assigned to Emotionally Focused Therapy (EFT) or to an individualized program of pharmacotherapy (PT) for the female partner. The purpose of the study was to examine the differential effectiveness of EFT, a systemic-experiential couple therapy, and PT in the prevention of relapse. Results suggest that both interventions were effective in reducing depression. Females in EFT were not depressed at follow-up but 2 females in PT did not respond to treatment. Marital adjustment increased significantly for females in EFT but not for their partners. The alleviation of depression in females in PT did not produce the hypothesized increase in their levels of marital adjustment, but their partners showed significant increases in their levels of marital adjustment. A differential pattern of relapse was not detected. Criteria for clinically-significant change suggest that females in EFT had better outcomes in terms of depression and marital distress, but that 2 couples in each group met the criteria of remitted depression and improvement in marital adjustment at 6-month follow-up. Results are discussed in light of an interpersonal approach to depression.

The Treatment of Clinical Depression
in the Context of Marital Distress

The purpose of this research was to investigate the differential effectiveness of marital and pharmacological treatments in a population exhibiting depression and marital distress. There is currently considerable interest in the literature on the nature and course of depression in adults, and an important focus of these investigations is the identification of treatment and process variables that are involved in the recurrence of depression.

The centrality of close personal relationships in human developmental and adaptive processes has long been recognized in the literature. The interpersonal school in psychology has emphasized the importance of the individual's closest relationships to personality functioning and has stressed the need for the investigation of the patterns and quality of social interactions. Sullivan (1956) has suggested that personality cannot be examined outside of the interpersonal context in which behaviour is developed and maintained, and that the fundamental nature of human existence unfolds in the reciprocal interactive processes of relationships. Bowlby (1979) has proposed that humans have an innate orientation to form attachments with others and that these attachments lead to the formation of social bonds

which significantly affect our self-perceptions. Bowlby has also suggested that the disruption of significant bonds results in the development of depression because intense emotions are associated with the formation, maintenance, and disruption of significant relationships (Bowlby, 1979).

The impact of the marital relationship on psychological and physical health has been well documented in the literature (Gove, 1972; Lynch, 1977), and this relationship has typically been perceived as the primary source of social support. Coyne and DeLongis (1986) have noted that the marital relationship is a key factor in the individual's perception of social support and that support from other sources cannot adequately compensate for the effects of an unsatisfactory marital relationship.

A review of the literature will focus on the etiology, treatment, and recurrence of depression and will consider the role of the marital relationship in the course of this disorder. A rationale is presented for the combined treatment of depression and marital distress and hypotheses for this clinical trial are advanced in recognition of the interpersonal context in which depression occurs.

REVIEW OF THE LITERATURE

Clinical Depression

Clinical depression is the most common psychiatric disorder and it has been estimated that approximately 25% of the population experiences an episode of clinical depression at least once in their lifetime (Amenson & Lewinsohn, 1981; Weissman, Myers, & Harding, 1978). This high rate of occurrence suggests that the causal antecedents to depression are either common or multiple (Lewinsohn, Hoberman, Teri, & Hautzinger, 1985).

Recent epidemiological studies have reported annual prevalence rates for major depression between 6.1% and 9%, and six-month prevalence rates ranging from 4.6% to 6.5% (Myers, Weissman, Tischler, Holzer, Leap, Orvaschel, Anthony, Boyd, Burke, Kramer, & Stoltzman, 1984; Robins, Helzer, Weissman, Orvaschel, Gruenberg, Burke, & Regier, 1984).

A number of firm risk factors for the development of depression have been noted in the literature. These include being young, female, and having had a previous episode of depression. Lewinsohn et al. (1985) have noted that men and women have comparable incidence rates for first episodes of unipolar depression (about 7.1% and 6.9% respectively), but that women with a history of depression display a 22% rate of becoming depressed again, whereas the comparable rate for males is 13%.

The prevalence rates for depression tend to peak between the ages of 20 and 40, and, as this is typically a time when both men and women are adjusting to the demands of careers and family, the effects of depression can disrupt a wide range of social functions.

Weissman (1987) has reported that rates for depression are lowest for men and women who are happily married, and highest for women in unhappy marriages. In a recent epidemiological study of major depressive disorder, Weissman (1987) reported a 25-fold increased risk rate of major depression for both men and women in unhappy marriages, with six-month prevalence rates of 14.9% for males and 45.5% for females. These data illustrate the importance of a healthy marital relationship in the maintenance of psychological well-being.

Episodes of depression are typically of relatively short duration, with approximately 25% of episodes of unipolar depression lasting about one month, and 50% lasting up to 3 months (Lewinsohn, Fenn, Stanton, & Franklin, 1985). It has been estimated that only 30% of individuals meeting diagnostic criteria for depression receive treatment (Roberts & Vernon, 1983), and this suggests that many persons are capable of marshalling effective coping resources to overcome depression. However, it appears that approximately 30% of individuals have more protracted periods of depression or do not benefit from

treatment (Weissman, Prusoff, Dimascio, Neu, Goklaney, & Klerman, 1979).

Clinical depression is now most typically diagnosed according to the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM-III; APA, 1980). The DSM-III provides a standardized assessment of depression on the basis of the presence or absence of specific symptoms, and establishes minimum requirements for the diagnosis of clinical depression on the basis of the duration of symptoms and specific constellations of symptoms. Though there is typically some degree of variability in the specific constellation of symptoms across individual cases, the central characteristic of clinical depression is the presence of disturbed or dysphoric affect. Other symptoms often include the loss of interest in usual activities, disturbances in the physiological functions of sleep, appetite and sex drive, and disruptions in the capacity for cognitive functioning as concentration and attentional processes are frequently impaired. There is also a characteristic loss of self-esteem as well as feelings of hopelessness and despair towards oneself and the future.

The DSM-III does not provide an index of the severity of depression and this is most commonly assessed by one or more secondary measures. The DSM-III allows for the differential diagnosis of sub-types of depression on the basis of symptom

patterns. These sub-types include endogenous and non-endogenous depression, and unipolar and bipolar classifications of depression.

The Etiology of Depression

There exist a variety of biological and psychological theories that attempt to elucidate the causal mechanisms involved in the onset and recurrence of depression. During the last 75 years, this area has been dominated by theories that propose unidirectional causal relationships between theoretically-based constructs and the development of depressive episodes. Recent critical reviews and empirical findings have led a number of researchers to develop process models of depression which more adequately account for the dynamic and interactive nature of personal and environmental variables in the etiology of depression.

Theories of depression have focused on a number of different variables. The medical or biological approach to depression posits a deficit in amine synthesis at critical receptor sites in the brain. McNeal and Cimboric (1986) have noted that much of the evidence for the role of biochemistry in depression is indirect and based on response to treatment or on levels of metabolites that are purported to vary with the presence or absence of depression. However, there is to date no evidence that biochemical dysfunctions are of direct causal

significance in the etiology of depression. No reliable differences have been reported between depressed and non-depressed individuals that could predict the development of depression, and remitted depressives show no differences in biochemical functioning when compared to persons who have never been depressed. McNeal and Cimboric (1986) and Free and Oei (1988) have acknowledged that depressed individuals do show differences in a variety of biochemical processes, but these differences appear to be limited to the period when the person is depressed and are therefore most clearly operating as concomitants of depression.

Cognitive and behavioural theories of the etiology of depression have also been prominent in the literature and have generated a great deal of research. Beck, Shaw, Rush, & Emery (1979) propose that dysfunctional cognitions and beliefs play a role in the etiology and maintenance of depression, and these cognitive factors are considered to be the primary causal factors in the development of depression. Abramson, Seligman, & Teasdale (1978) have proposed a theory of learned helplessness in which depressed persons perceive themselves as having no control over negative outcomes. This lack of control has been considered causally significant in the development of depressive symptomatology. Lewinsohn, Youngren, & Grosscup (1979) have proposed a behavioural model of depression in which the relative

balance of key positive and negative person-environment interactions are causal of depression.

Theoretical reviews and results of empirical investigations now suggest that the causal mechanisms implicated by the dominant theories of depression are not directly responsible for the onset of depression but are more likely interacting components of a complex depressogenic process (Beidel & Turner, 1983; Coyne & Gotlib, 1983; Lewinsohn et al., 1985). Lewinsohn et al. (1985) have noted that though specific, theoretically-derived constructs have been targeted for treatment in a number of studies, the emerging pattern of results is of non-specific treatment effects. These authors suggest that the various cognitive, behavioural, and biochemical manifestations of depression tend to respond as a unit to treatment interventions. Furthermore, these manifestations of depression appear to be concomitants of depression and their etiological role is as yet unclear. Hollon, DeRubeis, & Evans (1988) have noted the lack of research on the mediational role of theoretically-based variables in the etiology of depression and have emphasized that the success of a particular treatment intervention does not correspond to a validation of the etiological model. Hollon et al. (1988) suggest that efforts to prevent the development or recurrence of depression would provide a better test of the causal processes of depression because

results from treatment studies suggest that sets of processes are affected.

Barnett & Gotlib (1989) have reviewed the role of a variety of psychosocial variables as antecedents, concomitants, or sequelae of depression. Results of their critical review suggest that problems in interpersonal functioning can operate as antecedents or consequences of depression. These authors advance that marital distress and low social integration may play a role in the development of depression and suggest that the most promising avenues for future research involve an examination of the reciprocal effects of factors in the interpersonal domain. Similarly, Lewinsohn et al. (1985) have acknowledged the strong association between psychosocial stressors and the development of depression, and have emphasized the particular role of marital distress, social exits, and employment problems in the etiology of depression.

Depression and Marital Distress

To date, research has failed to adequately separate the effects of depression and marital distress because of the strength of the association between these variables (Kahn, Coyne & Margolin, 1985). There has been a lack of longitudinal research designed to investigate the role of marital distress in the etiology of depression, but there is considerable evidence that depression is related to problems in interpersonal

functioning and to difficulties in the marital relationship in particular.

Rounsaville, Weissman, Prusoff & Herceg-Baron (1979) reported that 50% of individuals seeking treatment for depression also presented with marital distress. Beach, Jouriles & O'Leary (1985) found that over 50% of distressed couples contain at least one partner with significant depression. Coleman & Miller (1975) also reported a significant correlation between depression and marital maladjustment, and Ilfeld (1977) found that marital conflict is the psychosocial stressor which most consistently accompanies the development of depression in married individuals. In addition, marital conflict has been identified as the stressor which most often precedes the onset of a depressive episode in married individuals (Paykel, Myers, Dienelt, Klerman, Lindenthal & Pepper, 1969).

The marriages of depressed women are characterized by conflict, and less clinical improvement is seen in patients treated with pharmacotherapy whose relationships continue to be marked by conflict (Bothwell & Weissman, 1977; Klerman & Weissman, 1982). Rounsaville et al. (1979) reported that depressed women within distressed marriages display poorer treatment outcomes than do women who are either single or involved in supportive relationships. These authors noted that women who were able to bring about improvements in their

relationships also experienced a reduction in depressive symptomatology, whereas women whose relationships did not improve exhibited less improvement or a worsening of depressive symptoms. Though all women in this study received pharmacotherapy and experienced an initial improvement in depressive symptoms, the improvement of the marital relationship appeared to play a key role in the maintenance of treatment gains. Indeed, there appears to be an emerging consensus in the literature that marital conflict reduces the probability of obtaining an optimal therapeutic response to pharmacotherapy. Response rates to appropriate pharmacological treatment have been reported to be as high as 95% and as low as between 40 to 60% with the presence of a significant psychosocial stressor such as marital distress (Akiskal & Simmons, 1985; Noll, Davis, & DeLeon-Jones, 1985).

While some researchers have suggested that clinical depression reveals a pattern of chronicity that is largely independent of marital or life stressors (Akiskal, 1985; Akiskal, Bitar, Puzantian, Rosenthal & Walker, 1978), Brown, Bifulco, Harris & Bridge (1986) have noted that research in this area has failed to control for continuing long-term difficulties that are likely involved in the perpetuation or recurrence of psychiatric conditions. In a longitudinal study examining life stress and vulnerability to depression, Brown et al. reported that low self-esteem, marked long-term difficulties and severe life events

arising out of these difficulties are the most important psychosocial factors involved in the development of depression. These factors were correlated with the presence of subclinical depressive symptomatology, but these authors suggest that chronic subclinical symptoms have an indirect role in the etiology of depressive episodes since they do not appear to increase vulnerability to depression but may exacerbate the psychosocial factors involved in depression. As such, episodes of depression may develop out of a background of long-term marital difficulties producing a pattern of chronic subclinical symptoms which in turn perpetuate marital distress.

There are very few longitudinal studies that have examined the role of marital dysfunction in the etiology of depression. O'Hara (1986) examined marital support and marital adjustment in pregnant women. Results of this prospective study were that women who became clinically depressed postpartum had lower levels of marital adjustment than did non-depressed controls, but no between-group differences in levels of social support from their spouses were found. Menaghan and Lieberman (1986) reported on the association between feelings about the marital relationship and depression in a community based sample. The results of this study suggest a significant association between the presence of marital distress and the development of depression 4 years later. The lack of more numerous assessments

of both the marital relationship and levels of depressive symptomatology clearly bring the results of this research into question as a host of intervening variables may well have interacted to ultimately produce depression.

The issue of causality is central to an understanding of the nature of the depressogenic process. Given the interplay of a variety of person and relationship-specific factors, it is erroneous to assume that the presence of either depression or marital conflict necessarily entails the presence of both, and there are a variety of alternate conceptualizations of the association of depression and marital conflict. For example, marital distress may directly precipitate the onset of depression in certain individuals, or the lack of a sufficiently supportive intimate relationship may bring about an inability to withstand the effects of stressors and lead indirectly to the development of an episode of depression (Haas, Clarkin & Glick, 1985).

There is some evidence that diagnostic classification may also play a role in whether depression leads to marital distress. Matussek & Feil (1983) have reported significant differences in the relationship patterns of endogenous and non-endogenous unipolar depressives. Endogenous depressives typically reveal chronic patterns of depression within relatively intact relationships, though it is possible that in some cases these episodes of depression may lead to recurrent marital conflict

during the course of the episodes. Non-endogenous depressives are more likely to manifest clinically significant depression as the result of separation or marital conflict and the lack of a sufficiently supportive intimate relationship (Brown & Harris, 1978; Vaughn & Leff, 1976). There is also evidence that the relationship between depression and marital maladjustment is limited to non-bipolar cases (Ruestow, Dunner, Bleecker & Fieve, 1978).

Lewinsohn et al. (1985, 1988) have emphasized the need for longitudinal studies that will address the issue of the causality of depression within a multi-dimensional framework that recognizes the interactive nature of relevant personal and environmental variables. This type of model of depression suggests that the development of a depressive episode may be the final result of a process in which the individual's resources are overwhelmed and the marital relationship cannot provide adequate support because of the presence of conflict. Coyne and DeLongis (1986) suggest that the marital relationship is of central importance to the individual's sense of well-being and that other sources of social support cannot adequately replace it. Distress in the marital relationship can exacerbate any difficulties that may exist in other relationships and render the individual more isolated and even more dependent on a distressed primary relationship. Barnett and Gotlib (1989) note that marital

distress can chronically erode self-esteem and coping resources, and may lead to the development of depression by decreasing the individual's capacity to cope with other demands. In addition, depressed persons typically report having fewer social contacts than do the non-depressed (Brim, Whitcoff, & Wetzell, 1982), and experience their social relationships as being less supportive than do their non-depressed counterparts (Dean & Ensel, 1982). These findings suggest that the marital relationship of the depressed person may be overburdened by demands for support and may not be able to provide it.

Regardless of the particular causal pathway that results in the co-occurrence of depression and marital distress, it is clear that depression and marital conflict frequently co-exist and there is a growing body of literature that suggests that the presence of depression results in disturbed interpersonal functioning.

Depression and Marital Interaction

Despite the apparently intrapsychic nature of depression, it is becoming increasingly evident that the development and maintenance of depression may vary as a function of the interpersonal context in which it occurs. Coyne (1976a) has developed an interactional conceptualization of depression in which symptoms of depression may initially arouse a sympathetic response, but eventually lead to the rejection of the depressed

individual. Within this systemic-behavioural approach, the depressed individual tends to generate more symptoms of distress in an effort to gain control of the interpersonal situation. Coyne (1976b) conducted an experimental study of the response of others to depression and reported not only a consistent pattern of rejection of the depressed person, but also that depressive behaviours induce negative affect in others.

Studies that have examined patterns of communication and interaction in depression have consistently found evidence of interpersonal conflict, and it appears that the marital relationship is particularly affected by the presence of depression. Hinchliffe, Hooper, Vaughn, & Roberts (1978) have reported that problems in communication are specific to the marital relationships of depressives and are not found in the interactions of depressives with strangers. Contrary to research that has suggested that the negative perception of the social environment is the result of symptom status and is therefore inaccurate (cf. Beck et al., 1979), there is now evidence that depressives accurately perceive their interpersonal environment and that their environment is in fact negative (Coyne, 1976b; Lewinsohn, Mischel, Chaplin & Barton, 1980). Within an interpersonal context, it appears that depressed persons are primed to attend and react to negatively-toned information from their environment (Gotlib & Cane, 1987), and this negative

information is particularly aversive to depressed individuals (Lewinsohn, Lobitz, & Wilson, 1973). Kowalik & Gotlib (1987) reported that in comparison with controls depressives code a higher percentage of communications from their spouses as negative and that there is a high rate of concordance between spouses as to the negative content of communications. Though depressed individuals in this study intended and perceived a lower percentage of positive messages between themselves and their spouses, the negative perception of their environment appears to be an accurate appraisal of their marital relationship.

The perception of marital conflict in the relationships of depressed individuals does not appear to be limited to the depressed partner since spouses confirm the presence of marital discord (Kowalik et al., 1987; Ruestow, Dunner, Bleecker, & Fieve, 1978). Merikangas, Prusoff, Kupfer & Frank (1985) have reported a high correlation in the perception of the marital relationship between spouses of marital dyads that contain a depressed partner. These authors found that couples containing a depressed partner were significantly worse in all areas of marital functioning than normal controls, but that marital dissatisfaction was not a reflection of their degree of general life satisfaction. Similarly, Mitchell, Cronkite & Moos (1983) have found that couples that contain a depressed partner are at a

distinct disadvantage in comparison with normal controls in their experience of stressors and in their ability to marshal effective coping responses to life events.

Hautzinger, Linden & Hoffman (1982) investigated patterns of communication in distressed couples with and without a depressed partner. Communication in couples with a depressed partner was more negative and centered on somatic and psychological complaints, and the non-depressed partner evaluated their spouses negatively. Despite the presence of equivalent levels of marital distress, communication in couples without a depressed partner was characterized by significantly more reciprocity and support.

Merikangas, Ranelli and Kupfer (1979) have advanced that the behavior of the spouses' of depressed individuals may in fact be as important a predictor of clinical outcome as the patients own levels of depressive behavior. Hooley (1986) and Hooley and Teasdale (1989) investigated the relationship between levels of expressed emotion and relapse in unipolar depressives. Hooley examined levels of criticism, hostility and overinvolvement in the spouses of depressed patients and reported a high rate of negative criticism in the spouses of depressed individuals. Patients who relapsed reported their spouses as significantly more critical than did patients who remained well. Hooley and Teasdale suggest that expressed emotion, marital distress and

perceived criticism by the spouse were all significantly related with rates of relapse 9 months after recovery.

Biglan, Hops, Sherman, Friedman, Arthur, Thorsen, & Osteen (1985) examined problem-solving interactions of depressed women and their partners in distressed and non-distressed dyads and compared these groups to normal controls. The depressed and distressed group revealed significantly less facilitating behaviour and the lowest rates of self-disclosure. Interestingly, when husbands in the depressed and distressed group displayed facilitating behaviour there was a reduction in the depressive behaviour of their partners, but they showed less facilitating behaviour than normals. Depressed wives were found to exhibit self-derogations, complaints about their physical and psychological functioning and a pattern of dysphoric non-verbal communication. A tendency was reported for couples with depression, particularly those that were both depressed and distressed, to be more aggressive with their partners. The wives' depressive behaviour in the depressed and distressed group produced greater reductions in the aggressive behaviour of husbands, whereas the husbands' aggressive behaviour reduced the likelihood of the wives' depressive behaviour in the distressed only group. These authors reported that the interactive burden is placed on the non-depressed spouse because the depressed wife focuses a good deal of interaction on her negative state but

contributes little to problem-solving.

Kahn et al. (1985) investigated how couples with and without a depressed partner resolve marital conflict. Results of this study confirm the shared perception of marital difficulties between partners in depressed couples, and suggest that these couples reveal more destructive behaviour and less constructive problem-solving than couples without a depressed partner. This study reported a recurrent pattern of hurtful exchanges and the presence of hostility and aggression between depressed spouses and their partners, but also presented evidence of inhibition and withdrawal in these couples. Kahn et al. suggested that these seemingly contradictory behaviours are part of a vicious cycle in which aggressive exchanges fail to resolve issues and encourage withdrawal and the inhibition of negative feelings. Gradually, there appears to be an accumulation of hurt and resentment which result in the escalation of aggressive behaviour and which in turn work against the successful resolution of issues. These authors have noted that the traditional view of the depressed individual as withdrawn and lacking in expressed anger at best represents only one part of the behavioural cycle in the couple and is perhaps a more accurate description of the depressed individual's behaviour towards strangers.

Gotlib and Whiffen (1989) examined the issue of the specificity of distressed marital functioning to depression by

comparing groups of depressed psychiatric patients, non-depressed medical patients, and community controls. Couples in the depressed group performed significantly worse on all measures of marital functioning than did community controls, but it was reported that couples in the non-depressed medical group also exhibited problematic interpersonal functioning. However, only couples in the depressed group were characterized by negative feelings after an interaction task and by negative appraisals of the spouses' behaviour. Gotlib and Whiffen also report that there is more negative affect in the female partner of the depressed couple and that the appraisals of behaviours between spouses are quite consistent.

Research in the area of marital interaction underscores the importance of the interpersonal system in the course of depression and also emphasizes the need for the assessment of the marital relationship when depression is present in the couple. The diagnosis of both depression and marital distress is important to a combined treatment approach, and therapeutic interventions that focus on the role of the marital relationship in the etiology and maintenance of depressive symptomatology may be of central importance in the treatment of some forms of depression and in the prevention of relapse.

The Treatment of Depression

The efficacy of biological and psychological treatments of depression is well established in the literature and comparative outcome studies continue to emerge in support of these interventions. The National Institute of Mental Health (NIMH) has recently published the results of a major multisite outcome study that was designed to investigate the relative effectiveness of a number of treatments for depression. As reported by Elkin, Shea, Watkins, Imber, Sotsky, Collins, Glass, Pilkonis, Leber, Docherty, Fiester, & Parloff (1989), the NIMH study contrasted interpersonal psychotherapy, cognitive therapy, imipramine plus clinical management, and placebo plus clinical management in the treatment of unipolar depression. All interventions proved to be effective in reducing depression over the 16-week course of treatment and no significant differences were reported between the active treatments for less severe depression. However, there emerged an ordering of the treatments for the more severe cases of depression, with imipramine plus clinical management as the most effective intervention, followed by the psychotherapies, and placebo plus clinical management as the least effective.

Elkin et al. (1989) have noted the effectiveness of the placebo plus clinical management condition in this study and have pointed-out that support and encouragement were sufficient to bring-about a significant reduction of symptoms in the less

severely depressed patients. It is increasingly apparent that offering some form of treatment is significantly better than not intervening at all, but the results of this study do not include follow-up data and it will be important to evaluate the longer-term effects of these treatments. In addition, the NIMH study has not provided systematic evidence regarding the selection criteria for a particular intervention, and it will therefore be necessary to marshal research efforts to identify patient characteristics that would influence the choice of a given treatment.

Free & Oei (1989) conducted a meta-analysis of biological and psychological treatments and found both to be effective in producing clinically significant results. There was however a strong tendency for psychological treatments to be associated with larger effect sizes at termination and with better maintenance of treatment gains at follow-up. These authors found no evidence for a differential response to biological or psychological interventions in the less severe non-psychotic unipolar depression. It has been reported that the best predictor of the type of intervention received by depressed patients is the orientation of the center that is offering treatment rather than any particular diagnostic or assessment classification (Keller, Lavori, Klerman, Andreasen, Endicott, Coryell, et al., 1986).

The vast majority of studies included in meta-analyses of treatments for depression involve the investigation of one or more tricyclic antidepressants, and cognitive and behavioural therapies. Support for the biological and psychological theories is based primarily on successful outcome of the treatments, in comparison with various forms of biological and psychological placebos, and with each other. Kupfer and Freedman (1986) have questioned the relevance of some aspects of comparative trials since the methodological constraints of research do not typically allow for a true assessment of clinical practice. For example, the research requirement of procedural specificity has resulted in evaluations of pharmacotherapy that are typically based on the administration of only one drug. This practice may not result in the best possible treatment outcomes and may not reflect prevailing clinical practice.

Steinbrueck, Maxwell & Howard (1983) have reported a mean effect size of .61 for drug therapy versus placebo or wait-list control conditions in the treatment of unipolar depression in adults. Steinbrueck et al. analysed 56 outcome studies, over 60% of which were cognitive or behavioural, and 28% social-learning or interpersonal therapies; 2 studies included in this meta-analysis involved unspecified marital therapies. These authors report a mean effect size of 1.22 for psychotherapeutic interventions in unipolar depression but no significant

differences were found between types of psychotherapies in terms of their effectiveness in symptom reduction.

Studies comparing the effectiveness of pharmacotherapy and psychotherapy for depression have typically found both interventions to be effective in overall symptom reduction and that the combined use of these treatments may be somewhat more effective than either treatment alone (cf. Weissman et al., 1979). Conte, Plutchik, Wild & Karasu (1986) conducted a meta-analytic study of combined psychotherapy and pharmacotherapy for depression and report that the combination of drugs and psychotherapy is only slightly superior to either psychotherapy or pharmacotherapy alone, but that both are appreciably more effective than placebo conditions. Pharmacotherapy is generally found to have a more rapid effect on symptom remission, but pharmacotherapy and psychotherapy are generally equivalent in symptom reduction at the end of treatment. Psychotherapeutic treatments appear more effective with patients experiencing difficulties in social adjustment and interpersonal relations (Klerman, Dimascio, Weissman, Prusoff, & Paykel, 1974).

McLean and Carr (1989) have also reviewed the comparative efficacy of pharmacological and psychological treatments for unipolar depression. The conclusions of their review are that cognitive-behavioural and interpersonal treatments are typically superior to pharmacotherapy in both immediate and longer-term

effects, but that these effects are modest when placed in the context of non-specific treatment effects. McLean and Carr (1989) have emphasized that treatment response tends to occur independently of any specific treatment modality so that cognitive-behavioural and interpersonal treatments cannot be distinguished on the basis of either the magnitude of effect or on the basis of specific treatment effects. Overall, these authors suggest that treatment effects for depression are of moderate clinical significance and are well-maintained at follow-up, but that type of therapy is largely unrelated to clinical improvement. Finally, McLean and Carr (1989) suggest that research efforts in depression concentrate on the development of an empirical foundation for matching treatments to patient characteristics and on the examination of methods to prevent relapse as traditional comparative outcome studies cannot generate new knowledge about depression.

Nietzel, Russell, Hemmings, & Gretter (1987) used a meta-analytic approach to study clinically-significant change in the treatment of unipolar depression with psychotherapy. Nietzel et al. analysed 31 studies, over 80% of which were cognitive, behavioural, or cognitive-behavioural, and established criterion levels for clinically-significant change based on a comparison with non-depressed controls. The Beck Depression Inventory was the only measure of depression used to assess treatment response

in these studies. This inventory may not have provided an unbiased index of treatment response because it is based on primarily cognitive and behavioural symptoms of depression (Kazdin, 1986), but it remains the most commonly used measure of the severity of depression. The results of this meta-analysis suggest that psychotherapy produces moderately significant clinical outcomes that are maintained at follow-up.

Nietzel et al. noted that the maintenance of treatment gains appears to be a reliable finding across meta-analyses. Individual therapy was associated with greater clinical significance than group therapy, but type of therapy, duration of therapy, training of therapists, and type of subject assignment were not associated with clinical significance. However, clients who respond to advertisements or whose participation was solicited by the investigator tend to show less clinically significant outcomes than subjects who are referred or self-selected for treatment.

Robinson, Berman, & Neimeyer (1990) reviewed 58 studies on the treatment of depression and have suggested that while psychotherapy and pharmacotherapy produce substantial benefits for depressed patients, no reliable differences between these interventions can be found when the theoretical allegiance of the investigator is taken into account. Robinson et al. (1990) suggest that treated patients can still be distinguished from the

never-depressed, but that they are better off than untreated controls. Importantly, these authors advance that it is unclear which aspects of treatment are responsible for clinical improvement and they speculate that depression may be particularly responsive to a common set of therapeutic factors. Robinson et al. (1990) argue for a shift in the focus on depression toward client expectations and the therapeutic relationship as mechanisms of change.

In sum, research on the treatment of unipolar depression appears to have reached a turning-point. There is a consistent call to refocus investigative efforts away from the strictly comparative approach to treatments. As noted by McLean and Carr (1989) and Robinson et al. (1990) amongst others, the comparative approach has likely generated about as much information as the design allows. It is now important to identify patient characteristics and therapeutic processes that will further our knowledge of depression, and the issue of relapse is central to these efforts.

Relapse in Depression

Elkin, Parloff, Hadley, & Autry (1985) note that research concerning the treatment of depression has focused primarily upon the effectiveness of interventions and only recently has the focus shifted toward the issues of the recurrence of depression and the need to identify variables and therapeutic processes that

will reduce the risk of relapse. Belsher and Costello (1988) have advanced that studies of relapse will further our understanding of the nature and course of depression and may result in the development of feasible and effective treatment programs. These authors have defined relapse in depression as the recurrence of a depressive episode in patients who have previously met clinical diagnostic criteria for recovery from depression. Rates of relapse typically vary considerably across studies and treatment modalities because of differing methodologies and reporting procedures.

Belsher and Costello (1988) reviewed studies that reported relapse rates for unipolar depression and suggest that relapse is frequent after unipolar depression has been successfully treated. Approximately 20 to 25% of patients will have a diagnosable episode of depression within 2 to 4 months of recovery. Between 6 and 12 months post-recovery the rates vary between 22% and 50%, and relapse rates as high as 85% have been reported 2 years post-recovery in some studies. However, it appears that the longer patients stay well, the less likely they are to relapse, and that environmental stresses increase the probability of relapse. Belsher and Costello have noted that negative events occurring post-recovery typically distinguish relapsers from non-relapsers. The period of vulnerability to relapse as a function of negative events may only extend 3 months

post-recovery, so that negative events that impact the individual relatively early in the post-recovery period may carry a heightened degree of psychological salience.

Research by Lewinsohn, Hoberman, & Rosenbaum (1988) suggests that the presence of elevated stress, in the form of microstressors or major life disturbances, is significantly related to the recurrence of depression in recovered depressives. Lewinsohn et al. note the absence of biological or psychological deficits or "scars" that would differentiate those who have had an episode of depression from those who have not, but have emphasized the apparent vulnerability to relapse in those who have had a previous episode. Lewinsohn, Zeiss, & Duncan (1989) investigated relapse in untreated recovered depressives and identified a number of variables as predictive of relapse. According to these authors, the probability of relapse increases with the number and severity of previous episodes and with being female, but not with age of onset. Women were found to have more severe episodes of depression and, unlike men, were also found to maintain their level of risk for depression after the first episode. Lewinsohn et al. (1989) report that 45% of those who have a first episode of depression will experience a second episode, and that 33% of those who have had a second episode will experience a third.

It is of note that vulnerability to depression does not typically decrease over time and that there is in fact a sustained vulnerability for relapse despite the absence of distinguishing characteristics, or scars, between those who have never been depressed and recurrent depressives. Lewinsohn et al. have hypothesized that significant environmental stressors may play a role in maintaining vulnerability to depression over time. These researchers have demonstrated that the presence of elevated stress due to environmental events is significantly related to the development of depressive episodes, but it is unfortunate that an appropriate measure of marital distress was not used in their longitudinal research. Indeed, Lewinsohn et al. (1988) employed a measure of the potential for divorce in the couple and this cannot be reasonably equated with levels of conflict in the marital relationship. However, marital discord did emerge as one of the risk factors for more severe depression, along with an elevated rate of major and minor stressors and feelings of dissatisfaction with oneself.

Few studies have compared rates of relapse in pharmacotherapy and psychotherapy but it appears that relapse rates vary as a function of treatment modality. Simons, Murphy, Levine & Wetzel (1986) have reported that only 28% of depressed patients who received psychotherapy alone or in combination with pharmacotherapy relapsed by one-year follow-up, while 66% of

patients who received pharmacotherapy alone relapsed. Hollon, Tuason, Wiemer, deRubeis, Evans, & Garvey (1983) reported that at six months post-treatment, 18% of patients who received psychotherapy in combination with pharmacotherapy met criteria for relapse; the comparable rates for patients receiving psychotherapy or pharmacotherapy alone were 25% and 67% respectively. The differential rates of relapse reported for psychotherapeutic and pharmacological interventions in depression suggest that the effects of psychotherapy may be more enduring in preventing relapse.

Marital Therapy for Depression and Marital Distress

A promising new approach to treating depression in terms of symptom reduction and relapse prevention is the use of marital therapy. To date, few studies on the use of marital therapy in the treatment of depression have appeared in the literature. McLean, Ogston & Grauer (1973) randomly assigned 20 depressed outpatients and their spouses to either traditional treatments or to an experimental treatment which involved training in social learning principles for couples. There were significant reductions in depressive behaviour and increases in patient-spouse communication for the experimental group. Though this study was designed for couples in which one partner was depressed, the presence of marital conflict was not a selection criterion. Furthermore, it is difficult to assess the relevance

of this finding as specific diagnostic criteria were not presented.

Friedman (1975) examined the interaction of drug therapy with marital therapy in a randomized controlled trial involving depressed outpatients. Both drug and marital therapy had positive effects on symptom relief though drug therapy revealed a more rapid effect in reducing depressive symptoms. Marital therapy was found to have superior effects in the improvement of the marital relationship, and combined treatment with drug and marital therapy was superior to the other treatment or control conditions for both dependent variables. The type of marital therapy used in this study was not described and patients were not enlisted on the basis of a joint diagnosis of non-endogenous unipolar depression and marital distress.

Greene, Lustig & Lee (1976) have reported on the use of marital interventions when one spouse has a primary affective disorder. These authors found that 66% of patients experienced marital conflict as the result of recurrent episodes of depression and suggested a combination of somatotherapy and psychotherapy for the depressed spouse and psychotherapy for the non-depressed spouse. Despite a recognition of the role of interpersonal factors in depression, Greene et al. suggested that the non-depressed spouse can best cooperate in the treatment of their partner once they understand that a primary affective

disorder is caused by biochemical events. A marital therapy approach is not presented as a means of intervention in depression and marital distress, and the use of conjoint sessions appears to be limited to pre-marital counselling in which these investigators advise against marriage when there is a history of any form of primary affective disorder. Greene et al. present little diagnostic or marital data in their report and there is a marked lack of treatment outcome analysis.

Rush, Shaw, & Khatami (1980) employed a non-experimental approach to examine the use of cognitive therapeutic techniques in couples that contained a depressed partner. These authors suggest that the couples format facilitated the targeting and correction of interpersonal behaviours that maintained depressive thought patterns. Though their case-analytic methodology was limited to 3 couples, Rush et al. suggest that the use of the couple interpersonal system may not only reduce marital distress, but may also prove to be effective in reducing depressive symptomatology.

Jacobson (1984) has attempted to combine Behavioral Marital Therapy (BMT) with cognitive treatment of depression. While this approach recognizes the interplay of depression and interpersonal variables, Jacobson has chosen to separate depression from the context in which it occurs by treating the depressed spouse separately from the partner and initiating BMT

once depressive symptomatology has subsided. In addition, Jacobson has not used this approach with distressed couples and no data have been published on the efficacy of this intervention.

Interpersonal Psychotherapy (IPT; Klerman, Weissman, Rounsaville, & Chevron, 1984) was originally developed as a viable control condition in studies designed to assess the interactive effects of pharmacological and psychotherapeutic treatments of depression (Weissman et al., 1979). Though the focus of IPT is upon the social and interpersonal functioning of the patient, a review of the IPT treatment manual reveals that it is predominantly an individual therapy for depression rather than a marital therapy designed to treat a primary depressive disorder in one member of the marital dyad. Conjoint sessions appear to be used sporadically and only when the depressed spouse and/or the therapist consider that the participation of the partner would be useful in the resolution of given issues.

In a study designed to evaluate a marital intervention for concurrent depression and marital distress, Beach & O'Leary (1986) randomly assigned eight couples to either behavioural marital therapy, individual cognitive therapy or to a wait-list control condition. The wives met diagnostic criteria for non-endogenous unipolar depression (DSM-III classification 296.2 or 296.3) and presented with marital distress. Both active treatments were effective in reducing depression and wives in the

marital treatment group showed significantly greater gains in marital functioning than did those receiving individual therapy. While the results of this study appear promising for the combined treatment of depression and marital distress, the small sample size seriously restricts interpretation of the data.

Waring, Chamberlaine, McCrank, Stalker, Carver, Fry & Barnes (1988) have reported preliminary data from a randomized clinical trial involving 12 couples in which the female partner met criteria for dysthymia. Marital distress was evaluated on the basis of scores on an intimacy questionnaire and couples were within the range of scores obtained by distressed couples. Female partners were randomly assigned to minimum contact or cognitive marital therapy with a double-blind trial of an antidepressant versus a placebo. Results from the 10-week course of treatment suggest that a couple treatment based on the use of cognitive self-disclosure is effective in increasing levels of intimacy and in reducing levels of depression. The small sample used in this study prevented the investigators from detecting between-group differences, and further research is required to properly examine treatment effects.

Most recently, O'Leary & Beach (1990) randomly assigned 36 maritally distressed couples in which the female partner was depressed to either marital therapy, individual cognitive therapy, or to a wait-list control condition. Therapy lasted 15

to 16 weeks and the female partner met DSM-III criteria for clinical depression of moderate severity. Results of this study suggest that women in both treatment groups experienced a significant reduction in levels of depression, but that only women in the marital therapy group experienced a significant increase in marital adjustment. There were no differences at follow-up in the levels of depression in women, but women who received marital therapy continued to exhibit a significantly higher level of marital adjustment.

O'Leary & Beach (1990) have advanced that marital satisfaction plays a significant role in depression because women who received marital therapy in this study showed as much improvement in their levels of depression as did women who received individual therapy for depression. However, these authors suggest that improvements in marital satisfaction cannot be expected from individual treatment. It is unfortunate that data on the levels of marital adjustment in male partners were not reported in this study. Indeed, it is somewhat erroneous to assume that increases in levels of marital satisfaction in one partner necessarily entail concomitant increases for the other partner, or that an increase in one partner's level of marital satisfaction is sufficient for the improvement of the relationship. In addition, individual therapy for the depressed female partner may contribute to a deterioration of the marital

relationship because it can conceivably introduce as many problems in the couple as it seeks to resolve in the individual. It would appear necessary to report the levels of marital adjustment of both partners if the effect of marital interventions are to be fully evaluated.

In summary, a variety of marital interventions appear to hold promise for the treatment of depression when it co-exists with marital distress. Differential relapse rates for depression have yet to be examined for various treatment modalities in a population that exhibits depression with marital distress. The failure to employ standardized assessment procedures and inadequate methodologies have characterized research in this area, and a more rigorous approach is needed for the evaluation of the combined treatment of depression and marital distress.

EFT: Treating Depression in the Context of Marital Distress

Marital therapy is now recognized as the treatment of choice for conflict in intimate relationships. Gurman & Kniskern (1978) have emphasized that marital conflict has an extremely low rate of spontaneous remission and that disturbed patterns of communication and interaction tend to perpetuate themselves within the interpersonal domain. This area has been dominated by behavioural and cognitive-behavioural marital therapies and the effectiveness of these therapies has been demonstrated in a number of controlled studies (cf. Hahlweg & Markman, 1988).

Greenberg and Johnson (1986a) have noted that these therapies are primarily oriented towards the acquisition of skills, but that there is a growing recognition of the role of affect in marital therapy (Jacobson, 1983; Margolin & Weinstein, 1983).

Emotionally Focused Therapy (EFT) is a recently developed form of marital therapy which integrates experiential and systemic approaches in the process of psychotherapeutic change. It emphasizes the role of affect in change as well as the role of communication and interactional cycles in maintaining problem states (Greenberg & Johnson, 1986b). EFT views marital distress in terms of alienation and emotional deprivation, and affect as both a target and agent of psychotherapeutic change. Emotion is conceptualized within an information processing framework and therefore as a primary signalling and communication system and a source of adaptive behaviours. Emotional experience in intimate relationships structures the perception of one's spouse, facilitates access to key appraisals of the self in relation to the other, and motivates affective responses. The sharing of heightened emotional experience facilitates bonding and the growth of intimacy. The exploration and expression of new aspects of self, particularly of emotional vulnerability, directly promotes contact and trust, which then give rise to new perceptions of the spouse and to changes in the pattern of interaction and communication.

From the point of view of EFT, the development of depression in the couple is related to the absence or deterioration of emotional bonds and a lack of emotional intimacy and trust. Dysfunctional patterns of communication and interaction maintain depression and play a role in its recurrence. The positions that partners adopt in the relationship are considered to be the result of the interaction of unmet emotional needs in each individual within the couple. As such, emotional experience, including depression, is essentially interactive and contextual. EFT seeks to treat depression in the couple by restructuring the interactive context in which it occurs and by restoring emotional bonds and the experience of emotional intimacy. It is intimate emotional experience in the couple that will protect against the development and recurrence of depression and prevent the resurgence of dysfunctional patterns of communication and interaction.

EFT has been evaluated in clinical trials and has been shown to be a significantly more effective means of resolving marital conflict than cognitive-behavioural marital therapy (Johnson & Greenberg, 1985, 1985b), and equally as effective as systemic interactional marital therapy (Goldman, 1986). Johnson & Greenberg (1985) reported an effect size of 2.19 for EFT over a wait-list control condition, and an effect size of .634 was

obtained for EFT over a cognitive-behavioural treatment, with marital distress as the dependent variable. For this study, we refined EFT for the treatment of distressed couples in which the female partner is depressed, and prepared a structured treatment manual to be used in the training and evaluation of therapists and an implementation checklist to verify the integrity of treatment delivery (Appendix A).

Rationale and Research Strategy

Current treatment research supports the general effectiveness of individual psychotherapy and/or pharmacotherapy for symptom reduction in unipolar depression, but also reveals a high risk for relapse in the first months following recovery. Psychotherapeutic interventions typically produce treatment gains that are well maintained at follow-up and can reduce the risk for relapse. Pivotal questions at this time involve the identification of treatment approaches and treatment process variables that will reduce population-specific relapse rates, but few studies have systematically examined the issue of the recurrence of depression in relation to specific populations and forms of treatment intervention.

There exists a growing body of evidence that illustrates the disruptive effects of depression on relationships and which implicates marital distress in the development and maintenance of clinical depression. Recent data reflect a high rate of co-

occurrence of depression and marital distress, and the importance of interpersonal variables in the etiology, maintenance and recurrence of depression. Furthermore, the presence of marital distress interferes with the process of recovery from depression and marital distress rarely remits without treatment. Interventions aimed at both depression and marital distress should significantly reduce relapse rates by treating the context in which depression occurs.

This research involved the comparison of EFT with pharmacotherapy (PT) for the treatment of depression in the context of marital distress. Maritally-distressed couples, in which the female partner met diagnostic criteria for moderately severe clinical depression, were randomly assigned to EFT or to an individualized program of pharmacotherapy for the female partner. Pharmacological therapy was chosen as a reference treatment condition because of its well documented effectiveness in the treatment of depressive symptomatology. In addition, a pharmacological treatment condition was chosen because, as a control group, it would provide for the evaluation of the effects of symptom remission on the marital relationship over the course of treatment and at follow-up. Finally, it was more clinically and ethically responsible to provide active treatments for both groups in this study as subjects were experiencing significant levels of both depression and marital distress.

An appreciation of the interpersonal nature of depression in relationships led to the development of a series of hypotheses that recognize the interactive effects of depression and marital adjustment. Based on the review of the literature presented here, it was hypothesized that the female partner of couples assigned to EFT would display a significant reduction of depressive symptomatology at termination of treatment and also show long-term benefits of treatment. It was hypothesized that females in PT would also display a significant reduction in depressive symptomatology at the end of treatment; however, it was predicted that females in this group would display a significant trend toward relapse at 6-month follow-up because marital distress would continue to influence their psychological well-being. The differential effectiveness of EFT and PT in the treatment of depression was predicted to be displayed in a significant treatment x assessment interaction for females.

Males and females in EFT were predicted to show a significant increase in marital adjustment at the end of treatment and maintain an increased level of marital adjustment at follow-up. Couples in the PT group were expected to reveal an increase in marital adjustment at the end of treatment because of the effects of the reduction of depressive symptoms in the depressed partner. However, it was hypothesized that levels of marital adjustment in the PT group would deteriorate by 6-month

follow-up because marital distress typically does not remit without treatment. As such, the differential effectiveness of the treatments was predicted to be revealed in significant treatment x assessment interactions on the measure of marital distress for males and females.

To compensate for any loss of power caused by the estimated small sample size at start-up and the effects of attrition, a series of planned comparisons were developed. The use of planned comparisons requires the development of all relevant hypotheses prior to data analysis. Accordingly, the hypotheses developed for this study involved the specific comparison points where significant within-group differences were most likely to occur. Similarly, the between-group hypotheses involved comparisons in which the groups were predicted to reveal significant differences, and were therefore those points where treatment x assessment interactions were predicted to occur.

These hypotheses, which are fully developed below, suggested that the trend for couples in EFT would be characterized by the remission of depression in the female partner and the increase of marital adjustment for couples in EFT. The hypotheses put forward for PT suggested a tendency toward relapse of both depression in the female partner and of marital distress in the couple.

Hypotheses for Planned Comparisons

Within-group hypotheses

Hypotheses for females in EFT.

1. It was hypothesized that females in EFT would display a significant negative linear trend in levels of depression from pre-test to six-month follow-up.
2. It was hypothesized that females in EFT would show a statistically significant reduction in depressive symptomatology from pre-test to post-test.
3. It was predicted that females in EFT would display a long-term reduction in levels of depression based on the comparison of the treatment and follow-up phases of the study.
4. It was hypothesized that females in EFT would display a significant positive linear trend in marital adjustment from pre-test to six-month follow-up.
5. It was predicted that females in EFT would display statistically significant gains in marital adjustment from pre-test to post-test.
6. It was hypothesized that females in EFT would display a long-term increase in levels of marital adjustment based on the comparison of the treatment and follow-up phases of the study.

Hypotheses for males in EFT.

1. It was hypothesized that males in EFT would display a significant positive linear trend in marital adjustment from pre-test to six-month follow-up.
2. It was predicted that males in EFT would display statistically significant gains in marital adjustment from pre-test to post-test.
3. It was hypothesized that males in EFT would reveal a long-term increase in levels of marital adjustment based on the comparison of the treatment and follow-up phases of the study.

Though no differences in levels of depression for males in EFT were anticipated, an interpersonal approach to depression required an examination of the effects of treatment on levels of depressive symptomatology in males. As such, analyses developed for females on the measure of depression were extended to males in order to assess possible treatment effects.

Hypotheses for females in PT.

1. It was predicted that females in PT would display a significant quadratic trend in levels of depression from pre-test to 6-month follow-up; that is, depressive symptomatology for females in PT would return to pre-test levels by six-month follow-up and therefore constitute a relapse.

2. It was hypothesized that females in PT would show a statistically significant reduction in depressive symptomatology from pre-test to post-test.
3. It was predicted that no significant differences would be found in long-term levels of depression based on the comparison of the treatment and follow-up phase of the study.
4. It was also predicted that females in PT would display a significant quadratic trend in their levels of marital adjustment between pre-test and six-month follow-up; that is, levels of marital distress would return to pre-test levels by six-month follow-up and therefore constitute a relapse.
5. It was hypothesized that females in PT would display a significant increase in marital adjustment from pre-test to post-test.
6. It was predicted that no significant differences would be found in long-term levels of marital adjustment based on the comparison of the treatment and follow-up phases of the study.

Hypotheses for males in PT.

1. It was predicted that males in PT would display a significant quadratic trend in levels of marital adjustment from pre-test to six-month follow-up; that is, levels of marital adjustment would return to pre-test levels and therefore constitute a relapse.

2. It was hypothesized that males in PT would display a significant increase in marital adjustment from pre-test to post-test.

3. It was hypothesized that males in PT would reveal no significant long-term differences in levels of marital adjustment based on the comparison of the treatment and follow-up phases of the study.

As with their counterparts in EFT, levels of depressive symptomatology for males in PT were examined using the analyses developed for females in order to investigate effects of treatment.

Between-group hypotheses

1. It was hypothesized that females in EFT would reveal significantly less depression and a significantly higher level of marital adjustment at post-test and at 6-month follow-up than females in PT.

2. It was hypothesized that males in EFT would display a significantly higher level of marital adjustment than males in PT at post-test and at 6-month follow-up. No between-group differences in levels of depression for males were anticipated, but analyses were extended to include the examination of depression scores between groups in order to assess possible effects.

METHOD

Treatment Setting

The Center for Psychological Services of the University of Ottawa is a research and training facility that offers outpatient clinical psychological services to the Ottawa-Carleton region. The Center is staffed by registered psychologists who provide clinical supervision to doctoral-level interns in clinical psychology. The clinical program in psychology at the University of Ottawa is fully accredited by the American Psychological Association, and the Center for Psychological Services has full accreditation as an internship site.

Subjects

The Center for Psychological Services received 249 calls for possible participation in this study. A total of 48 couples met the initial inclusion/exclusion criteria and underwent assessment. Of these, 18 couples met all the criteria for assignment to treatment by the closing of the assessment period.

Inclusion criteria

1. All couples agreed to random assignment to a treatment condition.
2. The male partner agreed to participate in marital therapy and/or the completion of research measures.
3. On the basis of the Dyadic Adjustment Scale (DAS; Spanier, 1976), the maximum combined couple score was no higher than 95.

4. The female partner of each couple displayed major depression on the basis of the computerized version of the National Institute of Mental Health Diagnostic Interview Schedule (CDIS; Blouin, Perez , & Blouin, 1986) and was ambulatory, non-psychotic and non-bipolar.
5. The female partner of each couple displayed non-endogenous depressive symptomatology of at least moderate intensity as measured on the Inventory to Diagnose Depression (IDD; Zimmerman, Coryell, Corenthal, & Wilson, 1986). The target range for scores on the IDD at pre-test was between 25 and 40.
6. Couples had been married or cohabiting for a minimum of two years.
7. Couples reported no immediate plans for divorce or separation.
8. Couples were anglophone or fluently bilingual.

Exclusion criteria

1. Elevated risk of suicide on the basis of screening and assessment procedures and/or a previous suicide attempt. Individuals who endorsed the intention of suicide on any of the assessment measures were referred for treatment elsewhere. All female partners of couples were asked about previous suicide attempts and the possibility of self-destructive behaviour during the initial phone screen.
2. Current alcoholism or drug abuse in either partner.

3. Violence in the couple relationship.
4. The presence of a primary sexual dysfunction in either partner on the basis of diagnostic procedures or self-report.
5. The presence of a psychiatric disorder other than non-endogenous depression in the female partner on the basis of the CDIS diagnostic assessment.
6. The presence of a psychiatric disorder in the male partner on the basis of the CDIS diagnostic assessment.
7. Involvement in any other form of psychological or pharmacological treatment at the time of the study.

Treatment Groups

Pharmacological treatment group (PT). The female partner of couples assigned to this group received medication for depression in accordance with a pre-determined protocol. Type and dosage levels of medication used in this study are presented in Table 1. Medication was prescribed by an experienced registered psychiatrist who was free to choose between medications on the basis of presenting symptomatology and clinical judgement. The purpose of this approach was to treat presenting symptomatology as effectively as possible; as such, a relatively naturalistic approach to pharmacotherapy was implemented in this study. Factors affecting the choice of medication included level of anxiety and previous medication history, if any. All drugs in this study are tricyclic antidepressants that are in common use

(Steinbrueck et al., 1983), and are appropriate for the type and severity of depression of this sample (Conte et al., 1986; Noll et al., 1985; Quitkin, Rabkin, Ross, & McGrath, 1984).

Table 1

Pharmacotherapy Protocol

Medication	Dosage range
Desipramine	125mg.-225mg. per day
Trimipramine	125mg.-225mg. per day
Trazadone	250mg.-450mg. per day

Dosage levels were adjusted by the psychiatrist during the course of the trial in accordance with standard clinical practice and patient response. Pharmacotherapy of the depressed spouse was monitored by the psychiatrist over a 16-week treatment period; the duration of this trial conforms to accepted clinical standards (Conte et al., 1986). Subjects in this group were seen solely for the purpose of drug maintenance and clinical management, and this was limited to one twenty-minute contact per month. There was no maintenance on antidepressants beyond the 16-week treatment period.

EFT treatment group. Marital therapy consisted of 14 sessions of EFT and one individual session for each partner for a

total of approximately 20 hours of therapy contact per couple. Therapy sessions typically lasted one and one quarter hours, and were offered on a weekly basis. As partners received their individual treatment session in the same week, marital therapy with EFT required a minimum of 15 weeks to complete. Most couples needed to reschedule therapy sessions at least once due to illness or vacations but all couples completed the therapy protocol within 18 weeks.

Marital therapy was conducted by six (3 males, 3 females) senior doctoral-level interns in clinical psychology under the supervision of an experienced registered psychologist. All therapists had a minimum of one year of supervised training in EFT and this was supplemented by specialized clinical training on the use of EFT with a depressed population that took place prior to the beginning of the study. This training provided the therapists with approximately six hours of orientation to the study and involved a review of the modified treatment manual for Emotionally Focused Therapy as well as a presentation of clinical issues at play in the combined treatment of clinical depression and marital distress. Clinical supervision occurred on a weekly basis and provided for the on-going assessment of clinical progress. Therapists received approximately 40 minutes of group supervision for every 2 hours of therapy.

Measures

Measures of depression

Recent meta-analytic research has suggested that the evaluation of treatment outcome is potentially biased by the differential sensitivity and specificity of dependent measures across pharmacological and psychological treatment conditions (Lambert et al., 1986). Similarly, Kazdin (1986) has emphasized the need to select outcome measures that reflect treatment effects for all experimental conditions and that are not based on primarily behavioural, cognitive, or somatic manifestations of depression. Diagnostic and assessment procedures in this study have been standardized on the basis of DSM-III criteria for depression in an effort to avoid assessment bias and to provide a clearer perspective of treatment gains across psychological and pharmacological treatments.

The Diagnostic Interview Schedule. The National Institute of Mental Health Diagnostic Interview Schedule (DIS; Robins, Helzer, Croughan, & Ratcliff, 1981) is a highly structured interview which allows for the diagnosis of psychiatric disorders on the basis of DSM-III criteria. The DIS is a sensitive instrument that provides lifetime as well as current diagnoses using well-defined criteria. This instrument was designed to minimize the role of clinical judgement in the diagnosis of psychiatric disorders and it has been used extensively in

epidemiological studies sponsored by the National Institute of Mental Health in the United States.

A computerized version of the DIS (C-DIS) has been developed by Blouin, Perez, & Blouin (1986). The CDIS is an expert system that provides psychiatric diagnoses on the basis of DSM-III criteria with virtually no loss of reliability in comparison with the DIS. The system uses controlled branching, probing and symptom review to generate diagnoses. Blouin et al. have compared diagnostic categories obtained on the CDIS with a battery of assessment instruments that are valid measures of psychiatric symptomatology, and have reported significant concordance rates. In addition, the CDIS has been shown to have a high level of test-retest reliability. The CDIS requires approximately one and one-half hours to two hours to complete if all diagnostic sections are administered.

The Inventory for the Diagnosis of Depression (IDD). The Inventory for the Diagnosis of Depression (IDD) was developed to serve as a DSM-III based measure of major depression (Zimmerman, Coryell, Corenthal & Wilson, 1986; Zimmerman & Coryell, 1987). This instrument appears to be emerging as the instrument of choice for the differential diagnosis of depression as it provides for the reliable assessment of the type and severity of depressive disorder.

The IDD is a self-report instrument that covers the full

range of symptoms to diagnose major depression. The measure consists of 22 groups of five statements, with each group of statements representing one DSM-III based symptom of depression. Statements within each group are graded on a 5-point scale so that the severity of depression can be quantified. According to Zimmerman et al. (1986) and Zimmerman and Coryell (1988), the diagnostic performance of the IDD suggests that it is a sensitive and specific instrument that can reliably classify major depression according to severity and type. It correlates highly with the Hamilton Rating Scale for Depression ($r = .80, p < .001$) and the Beck Depression Inventory ($r = .87, p < .001$). The split-half reliability coefficient of the IDD was reported to be .93, and Cronbach's alpha .92. The IDD includes items which relate specifically to the diagnosis of melancholia or endogenous depression on the basis of DSM-III and Research Diagnostic Criteria (Spitzer, Endicott, & Robins, 1978). The duration of depression can be assessed with the IDD as each item can be scored as present for more or less than two weeks.

A slightly modified version of the IDD has been used in this study to monitor treatment response once the diagnosis of depression has been made. Developed by Zimmerman et al. (1986), this version is identical to the IDD save for the exclusion of questions relating to the duration of depressive symptoms and the elimination of the last three statement groups which are used in

the diagnosis of melancholia or endogenous depression.

The possible range of scores on the IDD is 0 to 88, with a maximum score of 4 on each of the 22 groups of statements. Zimmerman et al. (1986) have reported a mean score of 12 for a non-depressed population, and of 42 for a depressed inpatient population. The mean score range for moderate depression is between 28 and 40. The IDD can be completed in approximately 15 minutes by an inpatient population and requires minimal instructions for administration.

Beck Depression Inventory (BDI). The Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) is a widely used self-report measure of the severity of depressive symptomatology. This inventory has excellent psychometric properties and correlates significantly with both clinical and self-report ratings of depression (Beck et al., 1961; Zimmerman et al., 1986). The BDI consists of 21 sets of four statements, with each set reflecting a characteristic symptom of depression such as pessimism of outlook, social withdrawal and dissatisfaction. The four statements in each item set are scaled from 0 to 3 to reflect symptom severity, and the possible range of scores is 0 to 63. Beck et al. (1961) have reported that a mean total score of approximately 25 on the BDI corresponds to a moderate level of depression; a mean total score of approximately 30 on the BDI corresponds with clinical ratings of severe

depression. The use of this measure was limited to the pre-test assessment and scores on the IDD and BDI were compared to confirm levels of depressive symptomatology.

Measures of the couple relationship

The Dyadic Adjustment Scale (DAS). The Dyadic Adjustment Scale (DAS; Spanier, 1976) is currently considered the instrument of choice for the assessment of marital adjustment. The DAS was chosen for use in this study because it is a reliable instrument (coefficient alpha = .96) that correlates significantly with other measures of marital adjustment. Furthermore, the DAS is frequently used in studies of marital adjustment (cf. Beach & O'Leary, 1986, O'Leary & Beach, 1990; Keitner & Miller, 1990) and its use in this study will allow for comparison between studies.

This scale consists of 32 items that are grouped into four subscales: dyadic consensus, satisfaction, cohesion and affective expression. The possible range of scores on the DAS is 0 to 151, with most items on 5 or 6-point Likert-type scales which reflect either the amount of agreement or the frequency of events. Spanier has reported the mean total score for married couples to be 114.8 and 70.7 for divorced couples; a score of approximately 100 reflects the presence of marital distress. Each partner in the couple is administered the DAS individually and these scores are summed and divided to provide a measure of dyadic adjustment.

The Miller Social Intimacy Scale (MSIS). The Miller Social Intimacy Scale (MSIS; Miller & Lefcourt, 1982) has been developed as a measure of intimacy in interpersonal relationships. Close relationships have consistently been found to predict healthy psychological functioning (Brown & Harris, 1978; Gove, 1972; Lynch, 1977) and the presence of depressive symptomatology appears to be significantly associated with deficiencies in marital intimacy (Waring & Patton, 1984). The MSIS was chosen for use in this study because it is based on the social, emotional and interactive aspects of intimacy in the couple rather than upon elements such as cognitive disclosure (cf. Waring and Patton, 1984). Miller and Lefcourt report a Cronbach alpha coefficient of .91 for the MSIS ,and test-retest reliability of $r = .96$. Mean scores on the MSIS vary significantly between distressed and non-distressed married couples: the mean total score for non-distressed couples in the Miller and Lefcourt sample was approximately 154, whereas the score for the distressed married sample was 126. In this study, the MSIS was used as an assessment tool to complement the DAS.

With the exception of the CDIS, all measures are included in Appendix B.

Procedure

Subjects who were referred to the Center for Psychological Services were pre-screened by telephone on the basis of the inclusion and exclusion criteria. Phone screen procedures are contained in Appendix C. Subjects who satisfied the initial criteria for participation completed a consent form (Appendix D) and a demographic questionnaire (Appendix E), and underwent psychiatric screening with the computerized version of the Diagnostic Interview Schedule (CDIS). The following sections of the CDIS were administered to both male and female subjects: demographics; somatization; panic disorder; phobic disorder; depression; manic disorder; schizophrenia; anorexia nervosa; bulimia; alcohol abuse; obsessive compulsive disorder; drug abuse; psychosexual dysfunction; and adult antisocial dysfunction.

Subjects then continued the screening and pre-test procedures by completing the Inventory for the Diagnosis of Depression (IDD), the Beck Depression Inventory (BDI), the Dyadic Adjustment Scale (DAS), and the Miller Social Intimacy Scale (MSIS).

Couples, in which the female partner met criteria for major depressive disorder (non-endogenous) on the basis of the CDIS and the IDD, and who presented with marital distress, were considered appropriate for this study. A score range of 25 to 45

on the IDD was deemed to reflect moderate depressive symptomatology. A maximum couple score of 95 on the DAS satisfied the criterion of marital distress.

Couples that failed the screening criteria were offered a feedback session and referred elsewhere if they wished. Only 2 couples refused feedback on the assessment materials.

Couples that met the screening criteria for clinical depression and marital distress were randomly assigned to treatment groups. The total number of couples assigned to treatment was known only at the close of the assessment period. Assignment to treatment was based on a coin toss and there were 3 successive pools of couples randomized over the assessment period. Couples were assigned a numerical identification code based on the order in which they were tested, and this code determined the order in which they were randomly assigned to treatment. The assessment phase of the study was closed after a period of approximately 3 weeks in which no new referrals were received. It was originally estimated that the PT group would display a higher rate of attrition (Free & Oei, 1989) and that this group would hopefully be larger than the EFT group. However, the groups were ultimately equal in size at pre-test.

Therapists were randomly assigned numbers between 1 and 6, and couples were assigned to therapists in the order in which they were randomly assigned to EFT. Each couple was therefore

assigned to the therapist whose turn it was to receive a couple. Since 9 couples were assigned to EFT, 3 therapists saw 2 couples each, and 3 therapists saw 1 couple each.

The female partner of couples assigned to the pharmacotherapy condition underwent a further hour-long screening with the psychiatrist to ensure their suitability for drug treatment and to receive appropriate prescriptions for medication. Subjects in this condition were reimbursed for the cost of medication during the trial. As the recruitment and assessment period extended over approximately 12 weeks, a staggered start-up was required in which three successive pools of subjects were randomized to treatment.

Testing Schedule

The dependent variables for this study were the IDD and the DAS. The BDI and MSIS were used as clinical assessment measures. Screening/pre-test scores (Time 1) consisted of the IDD, DAS, BDI, and MSIS. Both members of each couple were tested on all measures, and couples were diagnosed on the basis of the C-DiS and the IDD. Mid-treatment testing (Time 2) with the IDD and DAS occurred during the seventh week of the trial for both groups. Post-treatment (Time 3) and follow-up testing at three months (Time 4) and six months (Time 5) were also based on the IDD and the DAS. All assessment periods were observed as closely as possible over the duration of the project. Assessments were

completed within 7 days of the target dates for each couple during the treatment phase of the project, and within 2 weeks of the target dates during the follow-up phase.

Data Analysis

One-way analyses of variance (ANOVA) with repeated measures were performed for each dependent measure with treatment condition as the between-groups factor and 5 assessments as the within-groups repeated factors. Data for males and females were analysed separately because of initial differences in levels of depression and because couple scores on the DAS would mask potential differences in male and female treatment response. The BMDP2V statistical package was used for the analyses with orthogonal decomposition of the trends of the dependent measures for each group.

It was predicted that the differential effectiveness of EFT and PT in the treatment of depression and marital distress would be displayed by significant group x time (treatment x assessment) interactions on both measures. More specifically, it was hypothesized that significant linear trends for EFT on both measures and significant quadratic trends for PT would be found. However, given the estimated small sample size, a series of planned comparisons were developed to examine the hypotheses of this study with greater power. The basic methods and computational procedures were derived from Rosenthal and Rosnow

(1985) and involved sets of mutually orthogonal contrasts for within- and between-group comparisons. Comparisons within each contrast set were designed for maximal contrast while respecting orthogonality to maximize power to detect differences.

Appropriate polynomial coefficients were applied to means on the dependent measures for males and females in both EFT and PT to achieve full decomposition of the linear and quadratic trends which appear in the contrast summary tables. This approach allowed for a more powerful test of the linear trends for EFT and quadratic trends for PT if the predicted interactions did not occur.

Lambda weights (\underline{L}) employed for each contrast were based on the hypotheses described in the previous section. For example, it was hypothesized that females in EFT would reveal a significant increase in marital adjustment from pre-test ($\underline{L} = -1$) to post-test ($\underline{L} = +1$). Each contrast generates a contrast sum of squares which is evaluated against the appropriate error term.

Within-group Contrast Set. This contrast set was designed to examine within-group effects and involves the following contrasts:

- A. Time 1 vs. Time 3
- B. Time 1 + Time 2 / 2 vs. Time 4 + Time 5 / 2

Applied to both treatment groups, this contrast set allows for the analysis of treatment effects between pre-test and post-

test, and the comparison of treatment and follow-up phases of the study. The comparison of treatment and follow-up scores on the dependent variables is a maximal contrast constructed to examine initial versus longer-term levels of depressive symptomatology and marital distress.

The hypotheses for EFT were that females would show a significant negative linear trend for depression, and a significant positive linear trend for marital adjustment from pre-test to six-month follow-up. In addition, females in EFT were hypothesized to reveal a significant decrease in depression and a significant increase in marital adjustment from pre-test to post-test (within-group contrast A) and from the treatment phase to the follow-up phase (within-group contrast B). Males in EFT were also hypothesized to reveal a significant positive trend in marital adjustment from pre-test to six-month follow-up. A significant increase in marital adjustment from pre- to post-test (within-group contrast set A), as well as significantly higher marital adjustment in the follow-up phase than in the treatment phase (within-group contrast set B) were hypothesized for males.

It was predicted that females in PT would display a significant quadratic trend in depressive symptomatology over the assessment periods, and that both males and females in PT would display significant quadratic trends in marital adjustment over time. It was also hypothesized that there would be a significant

decrease in depression and a significant increase in marital adjustment from pre-test to post-test for females (within-group contrast A), but that no significant differences would exist between treatment and follow-up phases (within-group contrast B). Males in PT were hypothesized to display a significant increase in marital adjustment from pre-test to post-test (within-group contrast A) because of the reduction of depressive symptomatology in their spouses, but it was hypothesized that no significant differences would be found between treatment and follow-up levels of marital adjustment for males in PT (within-group contrast B).

The contrast mean-square for each comparison in this contrast set was evaluated against the within-groups error term. Each contrast was evaluated with $\alpha = .05$, nondirectional.

Between-group Contrast Set. This set of comparisons was designed to examine between-group differences on the IDD and DAS:

- A. Time 3 EFT vs. Time 3 PT.
- B. Time 5 EFT vs. Time 5 PT.

Contrast A in this set allowed for the testing of the hypotheses that females in EFT would reveal significantly less depression and a significantly greater level of marital adjustment at post-test than females in PT. It was predicted that significant differences between groups for females on both dependent measures would also appear at 6-month follow-up (between-group contrast B). Males in EFT were hypothesized to

display a significantly higher level of marital adjustment at post-test and six-month follow-up than their counterparts in PT.

Each contrast in this set was evaluated with $\alpha = .05$, nondirectional. The error term for the calculation of F -ratios was the pooled or within-cell mean-square proposed by Kirk (1968). This term is derived from the sum of the between and within error terms divided by the sum of their respective degrees of freedom.

Criteria for Clinically Significant Change

In accordance with the trend toward the specification of clinically significant improvement or deterioration in treatment studies (cf. Jacobson, Follette, Revenstorf, Baucom, Hahlweg & Margolin, 1984), the following criteria were established as representing clinically significant results:

Depression. A score of 12 or less on the IDD was deemed to reflect the absence of clinically important depressive symptomatology and the remission of depression (Zimmerman et al., 1986). Subjects were administered the full IDD protocol at the 6-month assessment to determine symptom level and diagnosis.

Marital adjustment. Available meta-analyses of treatment effects for marital therapies suggest a range of effect sizes between .74 (Shapiro & Shapiro, 1982). and .95 (Hahlweg & Markman, 1988). For the purposes of this study, an increase or decrease in marital adjustment equivalent to an effect size of

1.5 on the DAS was considered to reflect a more stringent and clinically significant indication of improvement or deterioration in marital adjustment. Effect sizes are presented for males, females and couples within EFT and PT that meet this criterion. In addition, an analysis is presented of individuals and couples that meet the joint criteria of remission of depressive symptomatology and clinically significant improvement on the DAS.

Implementation of EFT

An implementation checklist for EFT was developed to ensure integrity of treatment delivery. This checklist is based on the treatment manual for EFT and comprises systemic and affective therapeutic interventions that characterize EFT. Random segments drawn from middle and end portions of therapy sessions were rated by 2 trained judges using the checklist. It was established that therapy sessions would be representative of EFT if 75% of therapist statements could be coded on the checklist. A number of sessions were analysed using interclass correlation to determine reliability across judges. Maclure & Willett (1987) have advanced that the interclass correlation is less sensitive to the number of categories than is Kappa. With a total of 15 categories on the EFT checklist, it was decided that the interclass correlation would provide a better measure of the degree of agreement between the judges. The criterion level of $r = .8$ was deemed to reflect an adequate level of reliability.

Data on the implementation of EFT are presented after the analyses of the planned comparisons.

RESULTS

Subject Recruitment

Referral sources. A number of strategies were implemented in an effort to obtain couples for this study: Community contacts were developed prior to the beginning of the study; approximately 280 letters were sent to general practitioners in medicine; two brief newspaper articles were published giving details of the project; newspaper advertisements were placed prior to the start-up date for assessments and at intervals during the course of the assessment period; the project was presented to 3 local hospitals that provide outpatient services and to 3 social service agencies; the study was presented to an association of approximately 50 practitioners of family medicine, and 6 interviews were provided to local radio stations.

Table 2 displays data on the number and source of referrals to this study. These referrals were received between the last week of January, 1988 and the second week of April, 1988. Referrals were no longer accepted to the study after a three-week period in which no referrals were received. Newspaper articles, radio presentations and advertisements accounted for the majority of referrals.

Table 2

Source of Referrals

Source	<u>N</u>	<u>%</u>
Newspaper Articles	112	47.0
Radio Presentations	67	28.1
Advertisements	49	20.6
Word of Mouth	6	2.5
General Practitioners	4	1.7
Hospitals	-	-
Social Services	-	-
Total	<u>238</u>	

Screening procedures and inclusion criteria. A total of 249 calls were received at the Center for Psychological Services concerning this study. Of these, 11 were for information only. Table 3 displays the inclusion/exclusion criteria that were not met by referrals. A total of 184 referrals failed the inclusion/exclusion criteria.

Table 3

Referrals Failing Inclusion/Exclusion Criteria

Criterion Failed	N	%
Randomization to treatment	63	26.5
Receiving treatment	23	9.6
Age	21	8.8
Francophone	18	7.6
Length of cohabitation	15	6.3
Psychiatric diagnosis	13	5.5
Alcohol/drug abuse	11	4.6
Primary sexual dysfunction	8	3.4
Family Violence	7	2.9
Possible risk of suicide	5	2.1
Total	184	77.3%

A large proportion of referrals (26.5%) refused participation because of their unwillingness to undergo pharmacotherapy for depression. Of the 63 referrals who refused randomization to treatment, 39 (62%) would have been appropriate for this study on the basis of the remaining screening criteria.

All referrals that were not appropriate were referred elsewhere for treatment if they wished.

Fifty-four appointments were made for assessment. Of these, 4 couples did not appear for testing and 2 couples refused to be randomized to treatment when they appeared at the initial interview. A total of 48 couples were assessed and 18 couples (37.5%) met the diagnostic criteria and were randomized to treatment. Treatment start-up was staggered over a period of about 3 months and successive pools of subjects were randomized.

Subject Characteristics

Demographic characteristics. A total of 18 couples were randomly assigned to treatment. Sociodemographic characteristics are presented for the EFT and PT groups in Table 4; these data are also presented for couples who formed a drop-out group (D) in an effort to identify presenting characteristics that would predict attrition. Data have been analysed on the basis of 7 couples in EFT, 5 couples in PT, and 6 couples in D. The D group is comprised of 4 couples from the PT group and 2 couples from EFT.

Table 4
Sample Characteristics

<u>Variable</u>	EFT	PT	D
<u>Age (years)</u>			
Females <u>M</u>	38.5	33.8	36.0
<u>SD</u>	4.5	6.8	7.2
Males <u>M</u>	40.7	36.2	36.6
<u>SD</u>	6.7	4.8	7.9
<u>Education</u>			
Females			
Completed Gr.12	2	1	2
Comm. Coll.	1	3	4
University Degree	4	1	0
Males			
Completed Gr.12	1	2	4
Comm. Coll.	1	2	1
University Degree	5	1	1 *
<u>Years of Cohabitation</u>			
<u>M</u>	13.6	10.8	8.2
<u>SD</u>	5.3	6.3	4.6
<u>Number of Children</u>			
0	-	1	1
1	3	1	2
2	2	3	1
3 or more	2	-	2
<u>Family Income</u>			
15-25k		1	
25-35k		2	
35-45k	1		2
45-55k	1		1
More than 55k	5	2	3

* $p < .05$

The average age for females across groups is approximately 36 years, and males average approximately 38 years of age. Couples had been cohabiting for an average of 10.85 years. No significant differences were found between groups in terms of age, years of cohabitation, number of children or family income. No differences in level of education were found for females between groups; males in EFT had a significantly higher level of education than males in D (Fisher's exact $p < .05$).

Clinical characteristics. Table 5 displays the means and standard deviations for the 3 groups on the measures of depression (IDD) and marital adjustment (DAS) at pre-test (Time 1). Only couples with clinically significant depression in the female partner and with marital distress were assigned to a treatment condition. The mean scores for all groups on the IDD suggest the presence of a moderate level of depressive symptomatology. For the purposes of comparison, the mean scores obtained on the BDI at pre-test by females are 22.58 ($SD = 6.65$) in EFT, 24.40 ($SD = 8.6$) in PT, and 23.33 ($SD = 6.16$) in D. Mean depression scores for males reflect a level of non-clinical symptom endorsement that is consistent with non-depressed population on the IDD (Zimmerman et al., 1986).

Table 5

Mean IDD and DAS Pre-Test Scores

	EFT	PT	D
<u>Measure</u>			
<u>IDD</u>			
Females			
<u>M</u>	31.85	34.60	33.66
<u>SD</u>	8.21	11.26	10.51
Males			
<u>M</u>	12.42	12.00	10.50
<u>SD</u>	9.44	7.96	7.39
<u>DAS</u>			
Females			
<u>M</u>	79.42	81.20	85.66
<u>SD</u>	15.18	13.34	11.05
Males			
<u>M</u>	91.00	81.20	90.16
<u>SD</u>	17.40	5.54	9.82

Mean scores on the DAS suggest that males and females in all groups satisfy the criterion level for marital distress; indeed, a significant degree of marital distress characterizes these groups on the basis of the norms for the DAS (Spanier, 1976). As a further description of the couples in this study, levels of intimacy are also well within the range of scores obtained by a distressed population (Miller & Lefcourt, 1982). The mean score on the MSIS for females in EFT is 90.85 (SD = 13.26); mean scores for females in PT and D are 111.80 (SD =

12.02) and 110.16 ($SD = 15.91$) respectively. Mean scores for males on the MSIS are 114 ($SD = 21.75$) for EFT, 104 ($SD = 22.17$) for PT, and 119.83 ($SD = 14.74$) for D. Cronbach alpha coefficients are not presented for the DAS, IDD, and MSIS because the small sample size renders the calculation of these statistics inappropriate (Personal communication, D. Schindler, University of Ottawa).

Data on the IDD, DAS, and MSIS were analysed to identify levels of depression, marital adjustment, and intimacy predictive of treatment withdrawal. Separate ANOVA's were performed on the IDD for females and males as elevated depression scores were an inclusion criterion for females. With $\alpha = .05$ for all analyses, no significant differences were found between groups in Time 1 scores for females on the IDD ($F(2, 15) = .12$), and no significant differences were found between groups on Time 1 scores for males on the IDD ($F(2, 15) = .09$). Pre-test scores on both the DAS and MSIS were analysed with 3×2 (treatment \times sex) ANOVA's. No significant effect of treatment ($F(1, 30) = .72$), sex ($F(1, 30) = 1.48$), or treatment \times sex interaction ($F(2, 30) = .60$) was found on the DAS. Similarly, no significant effect of treatment ($F(1, 30) = 1.74$), sex ($F(1, 30) = 2.09$), or treatment \times sex interaction ($F(2, 30) = 2.38$) was found on the MSIS.

With the exception of significant differences in pre-test

scores on the IDD between males and females, no differences were found between groups or between sexes in levels of marital distress or intimacy. Based on sample size, alpha, and effect sizes, power to detect between-group differences for any of the analyses does not exceed .20 (Cohen, 1969).

Diagnostic classification. All females assigned to treatment conditions met diagnostic criteria for major depressive disorder on the basis of the CDIS. Females were also required to receive a diagnosis on the basis of the IDD (non-endogenous major depression). This requirement of diagnostic confirmation between measures was based on the need to ensure diagnostic homogeneity. Though both measures are based on the DSM-III, complete diagnostic concordance was neither expected nor achieved. This was most likely the result of different administration and response modalities.

The CDIS provides information on all conditions that meet diagnostic criteria for psychiatric disorders. As such, an individual may meet diagnostic criteria for more than one disorder. Most depressed females in this study exhibited symptoms of disorders that were secondary to their depression, and this is a common finding in depression (Blouin et al., 1986).

Three females in EFT received diagnoses for recurrent major depression; this diagnosis also applied to 2 females in both the PT and D groups. The secondary diagnosis of anxiety

disorder was applicable to one female in both EFT and D, and to 2 females in PT. Four females in EFT satisfied criteria for a psychosexual dysfunction secondary to depression, as did 2 females in each of PT and D. Two females in EFT had secondary phobic disorders, as did one female in each of the PT and D groups. One female in each of the EFT and D groups had a history of alcohol abuse.

One male in each of the groups satisfied criteria for a psychosexual dysfunction that was secondary to marital difficulties. Two males in PT and 3 males in D had a history of alcohol abuse.

Attrition. Table 6 displays the number of couples at each assessment period over the course of treatment and at follow-up.

Table 6

Attrition across Assessment Periods

Assessment	1	2	3	4	5
<u>Group</u>					
EFT	9	7	7	7	5
PT	9	5	5	5	5

Nine couples were randomized to each group. Two couples dropped-out of the EFT group before assessment at mid-treatment. One of these couples refused to continue with couple therapy and

the other was separating. In the pharmacotherapy group, 4 couples dropped-out within 3 weeks of beginning treatment. Two couples reported difficulties with their medication and elected to withdraw from the study rather than having their medication adjusted or replaced, and two couples reported that they were separating. Despite their stated intention to remain together, 3 of the 6 couples that dropped-out prior to mid-treatment separated.

Of the 9 couples who began EFT, 7 remained in the study to the 3-month follow-up assessment, but only 5 were available at 6-months post-treatment. One couple in EFT declined further participation at six-months follow-up. The female partner in this couple was still depressed at 3-month follow-up, but IDD scores decreased from 41 at pre-test to 24 at last testing. DAS scores for the female partner increased by only 6 points and remained in the distressed range; the DAS score for the male partner increased by 22 points from pre-test to 3-month follow-up. The other EFT couple that dropped-out after 3-month follow-up could not be contacted. The female partner was no longer depressed and the IDD score had decreased from 43 at pre-test to 3 at last testing. Scores on the DAS for the female and male partners increased by 30 and 17 points respectively, and this placed them both in the non-distressed range of scores on the DAS.

In the PT group, all couples remained in the study after the initial attritions. The PT group was offered couple therapy appropriate to their needs if they completed the study. This may explain their availability as 3 of the 5 couples requested and received couple therapy at the University of Ottawa.

Comparison of EFT and PT

Tables presenting means and standard deviations for each dependent measure are based on $n = 5$ within each group for each dependent measure. The use of the planned comparison strategy only allowed for the analysis of couples that completed the entire assessment protocol. Omnibus summary tables for repeated measures one-way ANOVA's are followed by contrast summary tables for the analyses of within-group and between-group contrast sets. Requirements for homogeneity and sphericity in the repeated-measures analyses were met. Effect sizes are presented for significant contrasts and calculated as $r = \sqrt{\frac{df \text{ numerator}}{df \text{ numerator} + df \text{ denominator}}} \sqrt{F}$. This calculation of r is appropriate for contrasts with $df = 1$ (Rosenthal and Rosnow, 1985), and this in fact is the case with planned comparisons.

Depression in females. Figure 1 displays the decrease in IDD scores for EFT and PT over the 5 assessment periods. Means (and standard deviations) for females in EFT and PT on the IDD across the assessment periods are contained in Table 7. No significant differences were found between females in EFT and PT

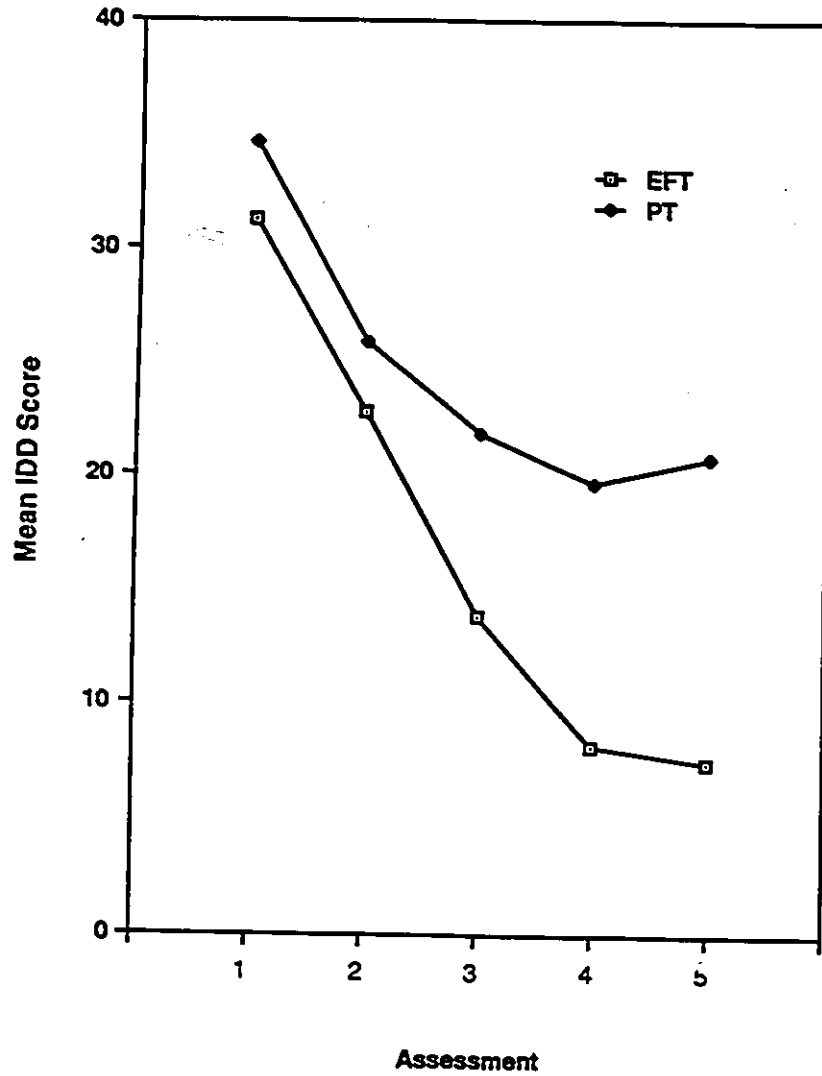


Figure 1. Mean IDD scores across assessment periods for females in EFT and PT.

at pre-test on the basis of a preliminary one-way ANOVA, $F(1, 8) = .29$.

Table 7

Mean IDD Scores for Females Through Follow-up

	EFT	PT
Time 1	31.20 (8.43)	34.60 (12.00)
Time 2	22.80 (16.00)	25.80 (20.21)
Time 3	13.80 (12.95)	21.80 (16.31)
Time 4	8.20 (9.31)	19.60 (11.90)
Time 5	7.60 (5.94)	20.80 (14.55)

The omnibus ANOVA summary table for females on the IDD (Table 8) contains no significant main effect of treatment, $F(1, 8) = 1.52$ ($p = .25$). There was a significant main effect for assessments over time with $F(4, 32) = 6.68$, $p < .01$. In addition, there was a significant linear trend, $F(1, 8) = 20.47$, $p < .01$.

There were no significant interactions in any of the trends and there was no significant assessment x time interaction. As such, the predicted differential effectiveness of the treatments for depression in females was not supported.

Table 8

ANOVA Summary Table for Females on the IDD

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Treatment	760.50	1	760.50	1.52
Error	3993.28	8	499.16	
Linear Trend	2284.84	1	2284.84	20.47**
Linear x treatment	196.00	1	196.00	1.76
Error	893.16	8	111.64	
Quadratic Trend	297.25	1	297.25	1.84
Quadratic x treatment	1.40	1	1.40	0.01
Error	1295.91	8	161.98	
Cubic Trend	4.41	1	4.41	0.04
Cubic x treatment	12.25	1	12.25	0.11
Error	867.84	8	108.48	
Quartic Trend	0.17	1	0.17	0.04
Quartic x treatment	1.75	1	1.75	0.36
Error	39.00	8	4.87	
Assessments	2586.68	4	646.67	6.68**
Assessments x treatment	211.40	4	52.85	0.55
Error	3095.92	32	96.74	

*p<.05, **p<.01

The contrast analyses for the linear and quadratic trends appear in Table 9. The EFT group showed a significant linear trend from pre-test to 6-months follow-up, $F(1, 8) = 17.10$, $p < .05$ and $r = .82$, which supports the hypothesized trend in the reduction of levels of depression over the assessment periods. The linear trend for PT was not significant. The hypothesized quadratic trend for PT was not supported by the data ($F(1, 32) = .79$), which suggests that females in PT do not return to pre-test levels of depression.

The within-group contrast set in Table 9 revealed the predicted significant reduction in depression for females in EFT both between pre- and post-test, $F(1, 32) = 7.82$, $p < .05$ and $r = .44$, and between the treatment phase and the follow-up phase, $F(1, 32) = 9.42$, $p < .05$. Similarly, the PT group showed a significant reduction in depression from pre- to post-test, $F(1, 32) = 4.23$, $p < .05$ and $r = .34$. However, as hypothesized, the follow-up phase did not differ significantly from the treatment phase for PT ($F(1, 32) = 2.58$). The between-group contrast set revealed no significant differences between groups at either post-test or 6-months follow-up. Power to detect between group differences was approximately .20 (Cohen, 1969).

Table 9

Contrast Analyses for Females on the IDD

	<u>df</u>	<u>MS</u>	<u>F</u>
<u>Linear Contrast</u>			
EFT	1	1909.62	17.10**
PT	1	571.22	5.11
Error	8	111.64	
<u>Quadratic Contrast</u>			
EFT	1	169.72	1.04
PT	1	128.92	0.79
Error	8	161.98	
<u>Within-group Contrast Set</u>			
EFT			
Pre-test vs. Post-test	1	756.90	7.82*
Treatment vs. Follow-up	1	912.02	9.42*
Error	32	96.74	
PT			
Pre-test vs. Post-test	1	409.60	4.23*
Treatment vs. Follow-up	1	250.00	2.58
Error	32	96.74	
<u>Between-group Contrast Set</u>			
EFT Post vs. PT Post	1	160.00	0.90
EFT 6-Month vs.			
PT 6-Month	1	435.60	2.45
Pooled Error	8	177.23	

*p<.05

Marital adjustment in females. Figure 2 displays the mean scores for EFT and PT over the 5 assessment periods. Table 10 displays the means (and standard deviations) for females on the DAS across the assessment periods. A preliminary ANOVA performed on pre-test data revealed no significant differences between groups, $F(1, 8) = .09$.

Table 11 displays the ANOVA summary table for females on the DAS and shows no significant main effect of treatment, $F(1, 8) = 1.00$, $p = .346$. There was a significant main effect for assessments over time with $F(4, 32) = 3.23$, $p < .05$. There were no significant interactions in any of the trends and no assessment x treatment interaction. The hypothesized differential effectiveness of EFT and PT in the treatment of marital distress was not supported.

Table 10

Mean DAS Scores for Females Through Follow-up

	EFT	PT
Time 1	84.00 (15.70)	81.20 (13.35)
Time 2	89.40 (19.78)	83.00 (22.80)
Time 3	100.60 (16.05)	91.60 (19.73)
Time 4	103.00 (18.58)	90.80 (21.57)
Time 5	103.20 (7.95)	86.60 (19.85)

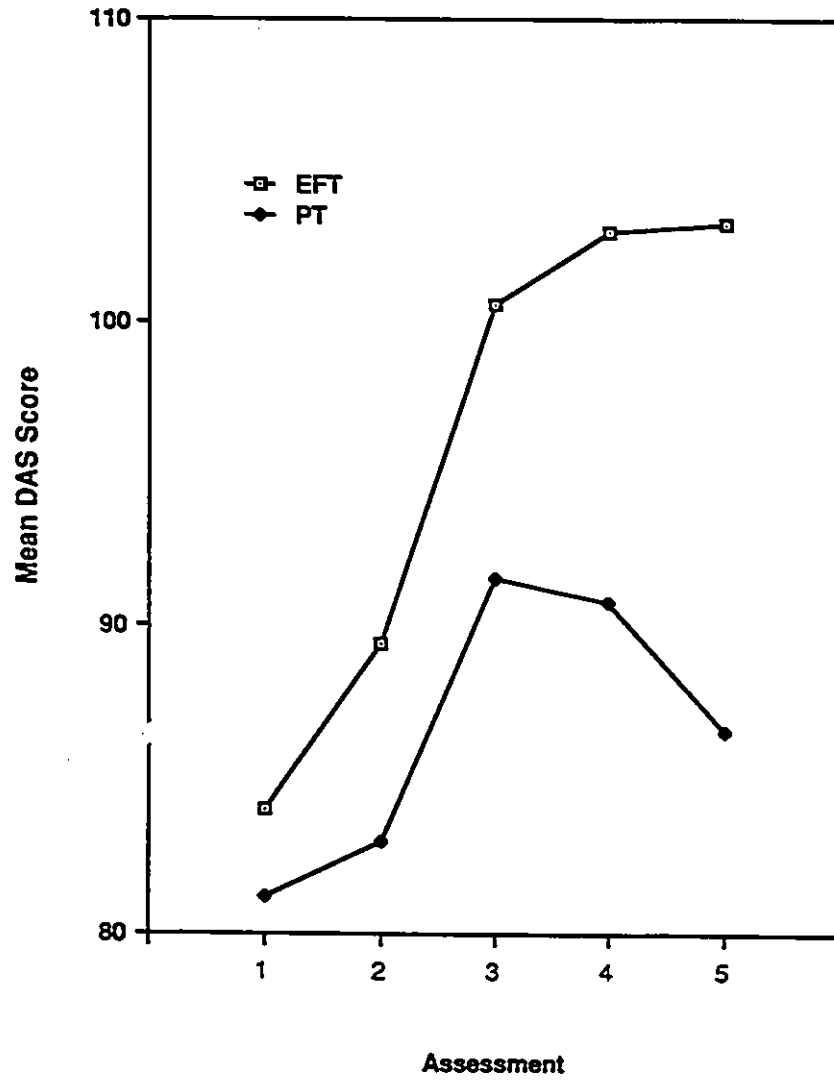


Figure 2. Mean DAS scores across assessment periods for females in EFT and PT.

Table 11

ANOVA Summary Table for Females on the DAS

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Treatment	1104.50	1	1104.50	1.00
Error	8824.32	8	1103.04	
Linear Trend	1246.09	1	1246.09	4.91
Linear x treatment	278.89	1	278.89	1.10
Error	2031.52	8	253.94	
Quadratic Trend	294.35	1	294.35	2.62
Quadratic x treatment	0.86	1	0.86	0.01
Error	900.00	8	112.50	
Cubic Trend	82.81	1	82.81	0.61
Cubic x treatment	1.21	1	1.21	0.01
Error	1094.48	8	136.81	
Quartic Trend	67.27	1	67.27	3.47
Quartic x treatment	0.03	1	0.03	0.00
Error	154.88	8	19.36	
Assessments	1690.52	4	422.63	3.23*
Assessments x Treatment	281.00	4	70.25	0.54
Error	4180.88	32	130.65	

*p<.05

Contrast analyses of the linear and quadratic trends for females on the DAS appear in Table 12. DAS scores for the EFT group displayed a significant linear trend, $F(1, 8) = 5.32$, $p < .05$ and $r = .63$, which supports the hypothesized increase in marital adjustment over the assessment periods for this group. Females in PT do not display the hypothesized quadratic trend in marital adjustment over time. The within group contrast set in Table 12 supports the hypothesis of significant increases for females on the DAS in EFT from pre- to post-test, $F(1, 32) = 5.27$, $p < .05$ and $r = .37$. As predicted, the follow-up phase is also significantly higher than the treatment phase for EFT, with $F(1, 32) = 5.15$, $p < .05$ and $r = .37$.

Contrary to the hypothesized result, no significant differences were found for the PT group from pre-test to post-test. In addition, no significant differences were present between the treatment and follow-up phases for females in PT on the DAS. Despite the apparent differences in mean levels of marital adjustment, no significant differences were present for the between-group contrasts at post-test or at 6-months follow-up. Power to detect between-group differences was about .15 (Cohen, 1969).

Table 12

Contrast Analyses for Females on the DAS

	<u>df</u>	<u>MS</u>	<u>F</u>
<u>Linear Contrast</u>			
EFT	1	1352.00	5.32*
PT	1	172.98	0.68
Error	8	253.94	
<u>Quadratic Contrast</u>			
EFT	1	131.65	1.17
PT	1	163.55	1.45
Error	8	112.50	
<u>Within-group Contrast set</u>			
EFT			
Pre-test vs. Post-test	1	688.90	5.27*
Treatment vs. Follow-up	1	672.40	5.15*
Error	32	130.65	
PT			
Pre-test vs. Post-test	1	270.40	2.07
Treatment vs. Follow-up	1	108.90	0.83
Error	32	130.65	
<u>Between-group Contrast Set</u>			
EFT Post vs. PT Post	1	202.50	0.62
EFT 6-Month vs.			
PT 6-Month	1	688.90	2.12
Pooled Error	8	325.13	

* $p < .05$

Depression in males. Figure 3 presents mean scores on the IDD for males and females in EFT over the assessment periods; figure 4 presents this same information for males and females in PT. Table 13 displays the means (and standard deviations) for males on the IDD across the assessment periods. No significant differences were found between groups at pre-test on the IDD, $F(1, 8) = .21$. The omnibus ANOVA summary table (Table 14) revealed no significant differences either between or within groups for males on the IDD. In addition, there were no significant interactions.

Table 13

Mean IDD Scores for Males Through Follow-up

	EFT	PT
Time 1	10.00 (5.47)	12.00 (7.96)
Time 2	10.40 (11.17)	7.00 (3.00)
Time 3	6.40 (7.43)	5.00 (3.93)
Time 4	6.20 (7.15)	7.40 (4.61)
Time 5	7.20 (4.32)	8.60 (8.67)

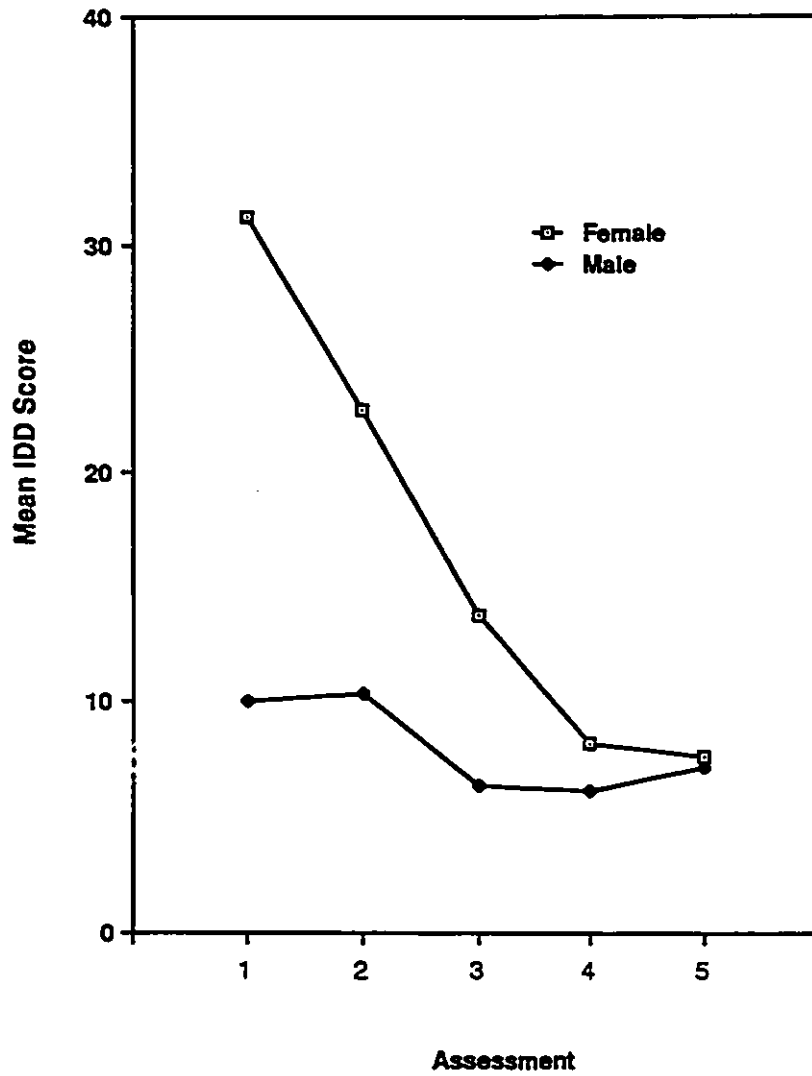


Figure 3. Mean IDD scores across assessment periods for males and females in EFT.

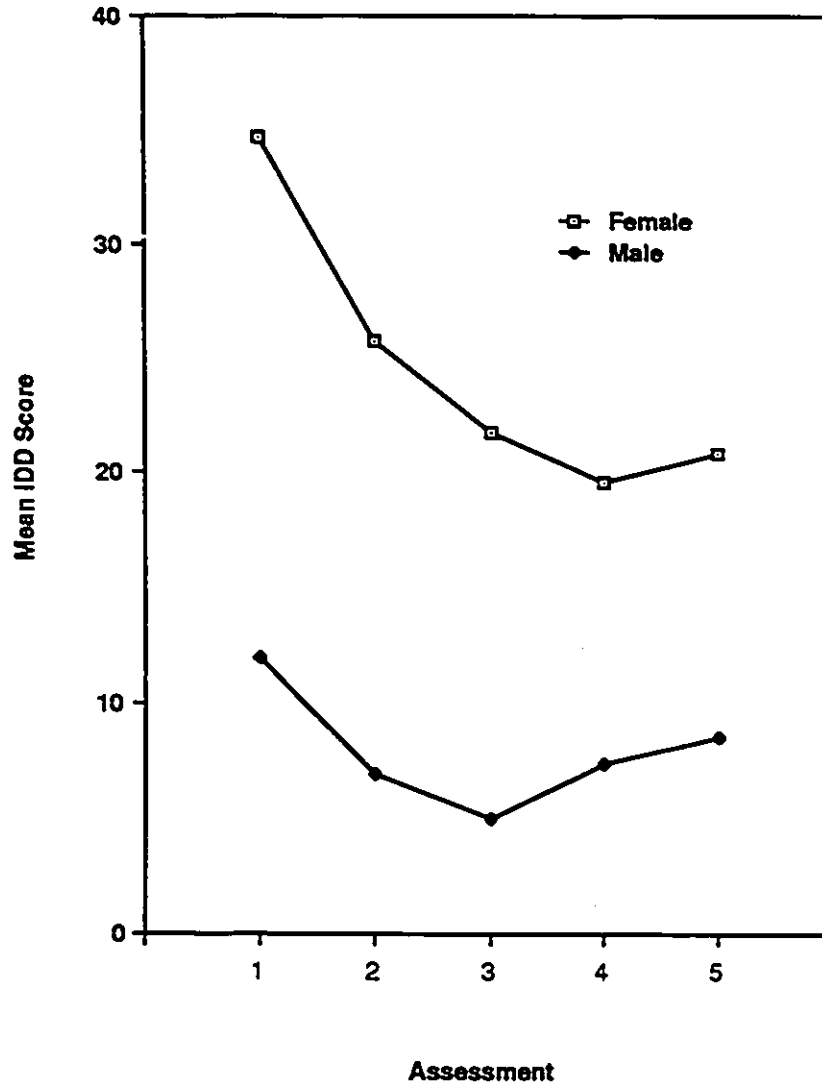


Figure 4. Mean IDD scores across assessment periods for males and females in PT.

Table 14

ANOVA Summary Table for Males on the IDD

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Treatment	0.02	1	0.02	0.00
Error	866.56	8	108.32	
Linear Trend	65.61	1	65.61	3.45
Linear x treatment	2.89	1	2.89	0.15
Error	152.20	8	19.02	
Quadratic Trend	84.86	1	84.86	1.16
Quadratic x treatment	24.86	1	24.86	0.34
Error	583.91	8	72.98	
Cubic Trend	0.49	1	0.49	0.02
Cubic x treatment	24.01	1	24.01	1.21
Error	158.80	8	19.85	
Quartic Trend	11.31	1	11.31	0.93
Quartic x treatment	0.51	1	0.51	0.04
Error	96.92	8	12.11	
Assessments	162.28	4	40.57	1.31
Assessments x Treatment	52.28	4	13.07	0.42
Error	991.84	32	30.99	

Table 15 contains the analyses of the linear and quadratic contrasts for males on the IDD, neither of which is significant for either group.

Table 15

Contrast Analyses for Males on the IDD

	<u>df</u>	<u>MS</u>	<u>F</u>
<u>Linear Contrast</u>			
EFT	1	48.02	2.52
PT	1	20.48	1.07
Error	8	19.02	
<u>Quadratic Contrast</u>			
EFT	1	8.92	0.12
PT	1	100.80	1.38
Error	8	72.98	
<u>Within-group Contrast</u>			
EFT			
Pre-test vs. Post-test	1	32.40	1.04
Treatment vs. Follow-up	1	30.62	0.98
Error	32	30.99	
PT			
Pre-test vs. Post-test	1	122.50	3.95
Treatment vs. Follow-up	1	5.62	0.18
Error	32	30.99	
<u>Between-group Contrast Set</u>			
EFT Post vs. PT Post	1	4.90	0.10
EFT 6-Month vs.			
PT 6-Month	1	4.90	0.10
Pooled Error	8	46.46	

The contrast summary table contained in Table 15 suggests that males exhibited no significant differences in levels of

depressive symptomatology in either within or between-group contrasts.

Marital adjustment in males. Figure 5 presents mean scores of males and females on the DAS across assessments for the EFT group; figure 6 presents these data for the PT group. Table 16 displays means and standard deviations for males on the DAS across the assessment periods. Groups were not significantly different at pre-test on the DAS, $F(1, 8) = 1.70$.

Table 16

Mean DAS Scores for Males Through Follow-up

	EFT	PT
Time 1	90.00 (14.03)	81.20 (5.54)
Time 2	89.20 (16.51)	92.60 (14.57)
Time 3	99.20 (18.21)	94.40 (13.35)
Time 4	103.80 (18.15)	94.30 (8.90)
Time 5	98.20 (17.45)	93.80 (19.46)

The omnibus ANOVA summary table (Table 17) contains a significant linear trend, $F(1,8) = 7.27$, $p < .05$. There was also a significant main effect for assessments over time, $F(4, 32) = 3.61$, $p < .05$. There were no significant interactions and no evidence of a differential pattern of effectiveness of the treatments over time.

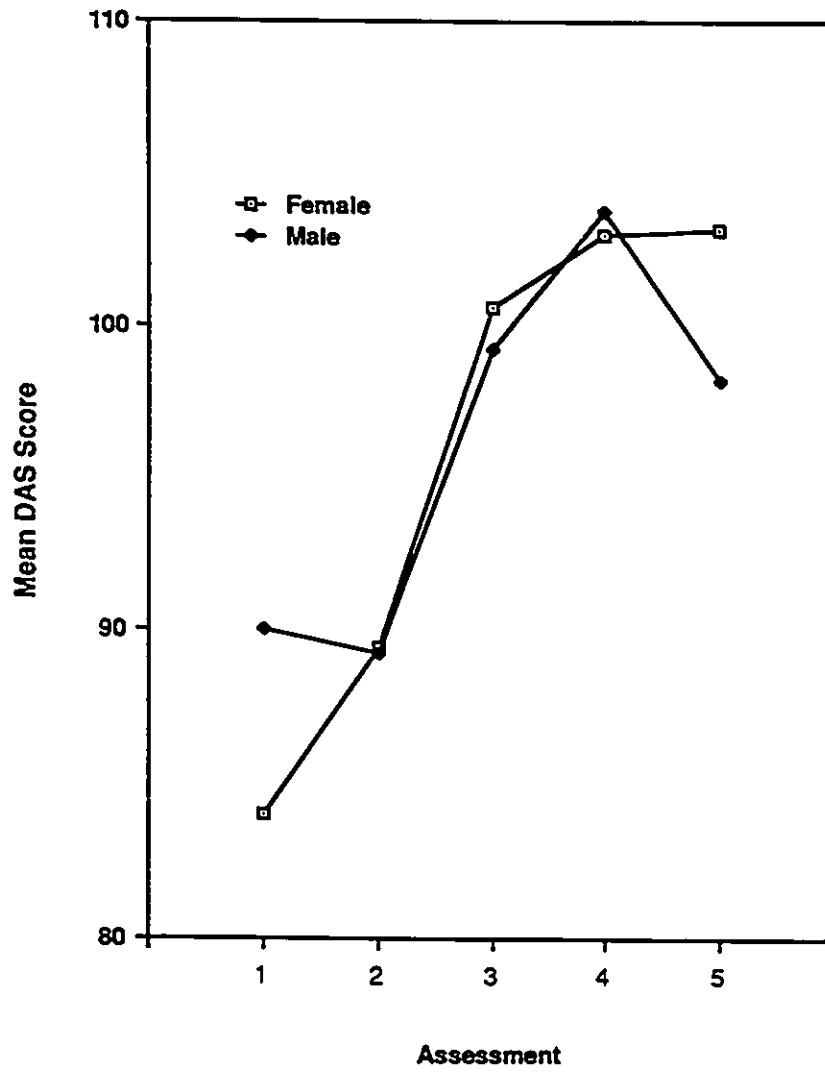


Figure 5. Mean DAS scores across assessment periods for males and females in EFT.

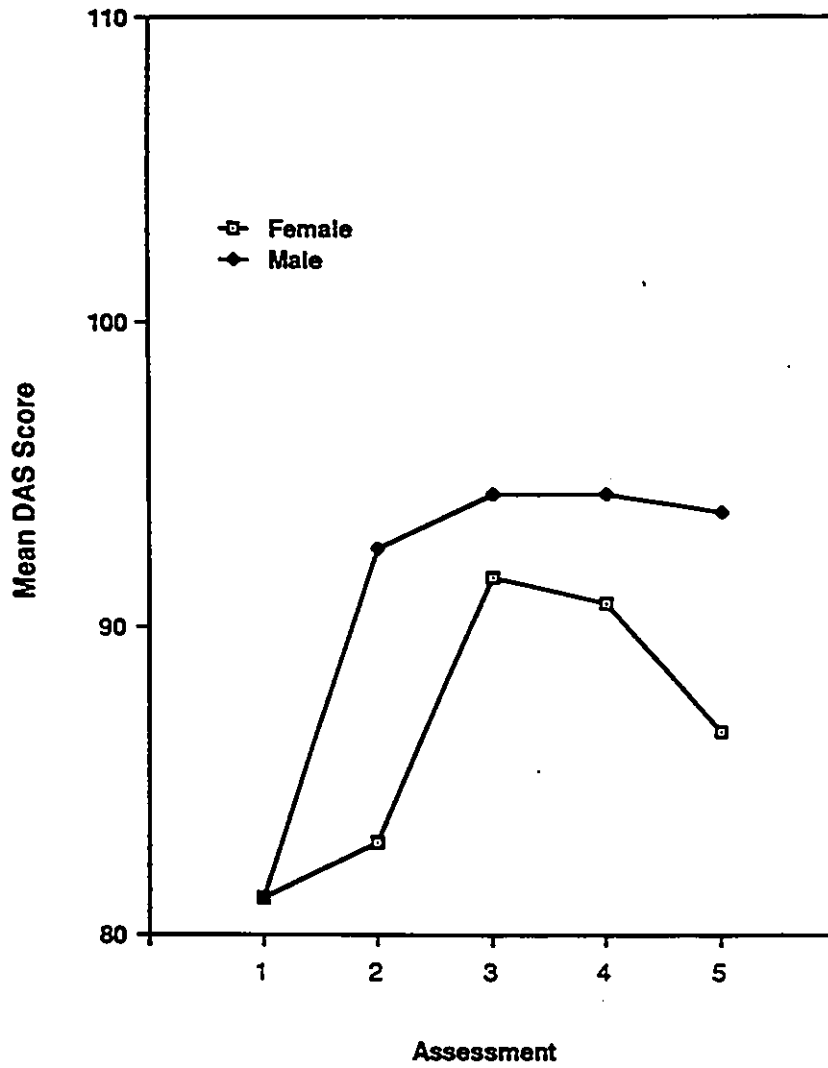


Figure 6. Mean DAS scores across assessment periods for males and females in PT.

Table 17

ANOVA Summary Table for Males on the DAS

Source	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>
Treatment	288.00	1	288.00	0.35
Error	6653.28	8	831.66	
Linear Trend	841.00	1	841.00	7.27*
Linear x treatment	4.00	1	4.00	0.03
Error	925.20	8	115.65	
Quadratic Trend	297.25	1	297.25	3.44
Quadratic x treatment	20.82	1	20.82	0.24
Error	692.05	8	86.50	
Cubic Trend	36.00	1	36.00	0.33
Cubic x treatment	225.00	1	225.00	2.03
Error	885.80	8	110.72	
Quartic Trend	0.82	1	0.82	0.06
Quartic x treatment	11.57	1	11.57	0.89
Error	104.06	8	13.00	
Assessments	1175.08	4	293.77	3.61*
Assessments x Treatment	261.40	4	65.35	0.80
Error	2607.12	32	81.47	

* $p < .05$

Table 18 contains the linear and quadratic trends for males in EFT and PT. Contrary to the hypotheses, males in EFT did not show a significant positive linear trend from pre-test to six-month follow-up on the DAS, and males in PT did not show the predicted quadratic trend in levels of marital adjustment over the assessment periods.

The within-group contrast analysis in Table 18 suggests that males in PT showed a significant increase in DAS scores from pre-test to post-test, $F(1, 32) = 5.34$, $p < .05$ and $r = .38$. Contrary to the hypothesized results, males in EFT do not show a significant increase in marital adjustment from either pre-test to post-test, or from the treatment to follow-up phases.

No significant differences were found between groups for males on the DAS. Power to detect between-group differences was less than .10 (Cohen, 1969).

Table 18

Contrast Analyses for Males on the DAS

	<u>df</u>	<u>MS</u>	<u>F</u>
<u>Linear Contrast</u>			
EFT	1	480.50	4.15
PT	1	364.50	3.15
Error	8	115.65	
<u>Quadratic Contrast</u>			
EFT	1	80.35	0.93
PT	1	237.73	2.74
Error	8	86.50	
<u>Within-group Contrast Set</u>			
EFT			
Pre-test vs. Post-test	1	211.60	2.59
Treatment vs. Follow-up	1	324.90	3.98
Error	32	81.47	
PT			
Pre-test vs. Post-test	1	435.60	5.34*
Treatment vs. Follow-up	1	127.80	1.56
Error	32	81.47	
<u>Between-group Contrast Set</u>			
EFT Post vs. PT Post	1	57.60	0.25
EFT 6-Month vs. PT 6-Month	1	48.40	0.21
Pooled Error	8	231.51	

*p<.05

Effect Size Data

Effect sizes for males and females on the IDD and DAS were calculated according to the basic meta-analytic methods popularized by Smith and Glass (1977). The calculations were based on the equation $[\underline{M}_1 - \underline{M}_2]/\underline{SD}$; applied to these data, \underline{M}_1 is the EFT mean score on the dependent measure, \underline{M}_2 is the PT mean score, and \underline{SD} is the population or common standard deviation on the measure at pre-test.

Table 19 presents effect size data for males and females in EFT and PT on both dependent measures. The population standard deviation on the IDD for females was 6.29, and 4.31 for males. On the DAS, the population standard deviation was 9.21 for females, and 6.74 for males. Effect sizes are presented for post-test and 6-month follow-up assessments.

Effect sizes were calculated in absolute terms so that on the IDD they reflect reductions in depressive symptomatology; effect sizes on the DAS suggest increases in marital adjustment. Effect sizes that appear in parentheses represent larger effects for PT. It is of note that in EFT it is the females who display medium to large effects in both depression and marital adjustment, whereas in PT it is the males who display larger effects in relation to their counterparts in EFT.

Table 19

Effect Size Data

	Post-test		6-month	
	Females	Males	Females	Males
<u>IDD</u>	.73	(.79)	1.56	(.13)
<u>DAS</u>	.67	(.60)	1.49	(.65)

Criteria for Clinically Significant Change

Depression. The criterion level established for clinically significant change in depression for females was a reduction to a score of 12 or less on the IDD. In EFT and PT, 3 out of 5 females meet this criterion at post-test. At 6-month follow-up, 4 out 5 females in EFT met the criterion level for remission of depression and one female exceeded the criterion by 3 points on the IDD. Only 2 out of 5 females in PT met the criterion level for remission of depression at 6-month follow-up.

While no females in EFT met diagnostic criteria for depression at 6-month follow-up, 2 of the 5 females in PT met

diagnostic criteria for major depression on the basis of the IDD at 6-month assessment and can best be considered non-responders to pharmacotherapy.

Marital adjustment. The criterion levels established for clinically significant improvement or deterioration in marital adjustment were based on an effect size of 1.5 on the DAS. For females, this corresponded to an increase or decrease of 14 points; for males, an effect size of 1.5 corresponded to an increase or decrease of 10 points on the DAS.

Table 20 presents data on the number of males, females, and couples who met criterion levels for improvement or deterioration in marital adjustment from pre-test to post-test, from post-test to six-month follow-up, and from pre-test to 6-month follow-up.

Overall, more females in EFT than in PT exhibited improvement in terms of clinically significant change on the DAS at all assessment periods. No females in either group exhibited deterioration from pre to post-test or from pre-test to 6-month follow-up. However, one female in each group showed deterioration when 6-month scores were compared to post-test scores.

Three males in each group improved significantly on the DAS from pre to post-test, and one male in EFT deteriorated. Three males in EFT and 2 males in PT improved from pre-test to

Table 20

Clinically Significant Change on the DAS

	Females <u>n</u>	Males <u>n</u>	Both <u>n</u>
<u>Improve</u>			
Pre to post			
EFT	3	3	2
PT	1	3	1
Post to 6-month			
EFT	1	0	0
PT	0	1	0
Pre to 6-month			
EFT	4	3	2
PT	2	2	2
<u>Deteriorate</u>			
Pre to post			
EFT	0	1	0
PT	0	0	0
Post to 6-month			
EFT	1	1	0
PT	1	1	0
Pre to 6-month			
EFT	0	0	0
PT	0	2	0

month follow-up, and 2 males in PT deteriorated in this period.

There were 2 couples in EFT in which both partners showed increases to the criterion level at post-test and at 6-month follow-up. There is one couple in PT in which both partners exhibited significant clinical improvement on the DAS to post-test, and 2 couples at 6-month follow-up.

Depression and marital adjustment. Individual and couple scores at post-test and six-month follow-up were examined to determine 1) the number of females in EFT and PT that met both criteria for clinically significant outcome (score of 12 or less on the IDD and an increase of 1.5 effect sizes on the DAS), and 2) the number of couples in which the female met the criterion for remission of depression and both partners met the criterion for significant clinical improvement on the DAS.

At post-test, 3 females in EFT and 1 female in PT met the combined criteria for remission of depression and clinically significant improvement in marital adjustment. At six-month follow-up, 3 females in EFT and 2 females in PT met these criteria. Two couples in EFT and 1 couple in PT met the criterion levels for remission of depression and marital adjustment at post-test; at six-month follow-up, 2 couples in each group met these criteria.

Predictors of Treatment Outcome

A retrospective analysis of subject variables was conducted in an effort to identify factors related to treatment outcome. The small sample size limited the probability of isolating predictor variables, but an informal analysis of age, socio-economic status, education, diagnostic clustering, levels of pre-test depression, marital distress, and intimacy, and of drug type was nevertheless undertaken. The homogeneity of the sample in terms of presenting characteristics resulted in the failure to isolate any of the above factors as predictors of treatment outcome. However, pre-test couple scores on the DAS for the 2 females in PT who did not respond to pharmacotherapy were the lowest in the treatment groups, but not significantly so.

Implementation of EFT

To verify the integrity of implementation of EFT, a number of sessions were rated by 2 trained judges using the implementation checklist contained in Appendix A. There were a total of 15 audiotaped sessions of EFT for each of 7 couples that completed treatment. The first and last 2 sessions were not rated because they were concerned primarily with either assessment or termination issues. A total of 30 sessions were chosen for rating, with each of the 6 therapists having 5 sessions rated. The 5 sessions chosen for rating represented

different phases of therapy for each therapist. Two 10-minute segments were randomly chosen from the first and last third of each session and the judges independently categorized therapist statements occurring within these segments on the basis of the implementation checklist.

The judges rated 664 therapist statements over the 30 sessions. A total of 551 (83%) of these statements fell within the categories contained in the EFT implementation checklist. This exceeded the criterion level of 75% that was established to reflect the faithful implementation of EFT. The 113 therapist statements that did not fall within EFT categories involved a variety of cognitive and behavioural interventions (for example, problem-solving and the teaching of communication skills), as well as non-therapeutic statements, such as arrangements for therapy and general conversation. These results suggested that therapists implemented EFT according to the treatment manual that was developed for this population.

In addition to the 30 sessions used for implementation checks, another 10 sessions were randomly chosen and rated for reliability between the judges. A 10-minute segment of therapy was randomly chosen for rating from each of these sessions. These data were analysed with an interclass correlation (Maclure & Willett, 1987). Based on a total of 146 therapist statements that were independently rated by both judges, a correlation of r

$r = .92$ ($p < .001$) was obtained between the judges over the 15 categories of EFT interventions. This correlation exceeded the criterion level established for inter-rater reliability and suggested that the judges rated the EFT sessions with a high level of reliability.

Summary of Results

The predicted differential effectiveness of EFT and PT in the treatment of depression and marital distress was not supported. Females in EFT showed significant statistical and clinical gains in the reduction of depression and in the improvement of marital adjustment over the course of the study. Their partners did not reveal the predicted increase in marital adjustment, but a majority of them displayed clinically-significant gains in marital adjustment.

Females in PT showed a statistically significant reduction in depression to post-test, but 2 females did not appear to respond to treatment. Levels of marital adjustment for females in PT were not affected by pharmacological treatment, but their partners revealed a significant increase in their levels of marital adjustment to post-test. The hypotheses concerning relapse of depression and marital distress were not supported.

The between-group contrast sets revealed no significant differences; power to detect between-group differences was uniformly low and varied between .10 and .20.

The small sample size and the homogeneity of demographic and clinical characteristics resulted in the failure to identify predictors of treatment outcome. However, females in PT who did not respond to treatment had the lowest pre-test DAS scores, but not significantly so.

DISCUSSION

This research contrasted interventions for depression that were hypothesized to reveal significant treatment effects but whose longer-term effects were predicted to differ. The hypotheses recognized the interpersonal context of depression, taking into account the reciprocal effects of depression and marital distress. This discussion reviews the research findings and presents avenues for future investigation.

Sample Characteristics

The demographic characteristics of the sample appear to have been representative of the Ottawa-Carleton region in respect to education, number of children, and family income (Statistics Canada, 1986). The average age of male and female subjects was also representative of the mean age of subjects included in a recent meta-analysis of depression studies (Nietzel et al., 1987). With the exception of a significantly higher level of education in males in EFT than in males in the drop-out group, no statistically significant differences were found between groups in terms of demographic characteristics.

Screening Procedures and Referral Sources.

An examination of the procedures that were used to secure an appropriate sample for this study suggests that future research will require a number of changes if it is to be cost-effective. Approximately 20% of the total number of callers passed the inclusion/exclusion criteria and were assessed, and only about 7% of the callers were ultimately assigned to treatment. A review of the inclusion/exclusion criteria reveals that more than 25% of the callers to the Center for Psychological Services refused to be randomized to drug therapy and it is probable that many couples did not contact the Center because radio presentations and newspaper articles made reference to the randomization procedure. Participation in this research required that couples agree to randomization to treatment and it became evident that pharmacotherapy is negatively perceived by the community at large.

Our contacts with the community suggested that this research straddled opposing orientations: Social service agencies tended to view pharmacotherapy with a good deal of disdain, and hospitals had apparently little faith in a marital intervention for depression. This study did not receive any referrals from either the social services or from hospitals. Both these groups maintain waiting-lists for services, but the atmosphere in the mental-health community is competitive and access to these lists was ultimately denied because they reflect a demand for service

which in turn affects budget submissions.

Very few general practitioners sought to refer clients to the study. Feedback that was received from the community and from psychiatrists suggests that general practitioners tend to treat psychological or psychiatric referrals themselves and refer to psychiatrists only if the condition of their clients deteriorates.

The inclusion and exclusion criteria for the study could in some cases be broadened. For example, the diagnostic criteria could include dysthymic disorders and depressed males could quite conceivably participate in future research. The predicted small sample size required a good degree of homogeneity in the diagnostic classification of the subjects, and diagnostic rigour resulted in the exclusion of a number of couples because they failed to meet diagnostic requirements on both the CDIS and the IDD. Future research will hopefully accommodate a broader range of diagnostic classifications, but other inclusion/exclusion criteria, such as the presence of violence or alcoholism in the couple, could not be reasonably altered.

Clinical Characteristics and Attrition.

The presenting characteristics of the female partners suggests that they were marked by at least moderately severe depression. Based on the comparison of pre-test scores on the IDD with the Beck Depression Inventory, the severity of

depressive symptomatology in females in this study corresponds well with the range of scores reported in meta-analyses of treatment studies (Conte et al., 1986; Free and Oei, 1989; Robinson et al., 1990). Couples were also experiencing a significant amount of marital conflict in comparison with the norms for happily-married couples on the DAS (Spanier, 1976), and pre-treatment scores on the DAS in this sample are in the range of scores reported in other outcome studies (cf. Beach & O'Leary, 1986; O'Leary & Beach, 1990). Moreover, levels of intimacy within the couples were also within the range of scores obtained by a distressed population (Miller and Lefcourt, 1983). It is of note that no significant differences were found between males and females on either measure of the couple relationship. This supports findings that suggest that both partners experience marital conflict when one partner is depressed (Kahn et al., 1985; Ruestow et al., 1978).

The volatility of the combination of depression and marital distress is perhaps best captured by the rate of separation in the drop-out group. One-half of the couples that dropped-out of the study before mid-treatment reported that they were separating. All couples had been asked about their degree of commitment to their relationships as part of the screening procedures and a number of couples were not invited to the assessment because they voiced uncertainty about the future of their relationship. The scores on the IDD, DAS, and MSIS of the

couples who dropped-out and separated were not significantly different from those obtained by the other couples.

Secondary diagnostic classifications for females on the CDIS did not appear to differentiate either drop-outs from those who remained in the study, or those who dropped-out and remained together from those who dropped-out and separated. However, a review of the CDIS protocols of the male partners who both dropped-out and separated reveals that all 3 had a history of alcohol abuse, though none reported current alcoholism.

The relationship between depression, marital distress, and past or current alcoholism is quite interesting, and an interpersonal perspective would suggest that the treatment of alcoholism may also benefit from an appreciation of the context in which it occurs. Future research may address the issue of a gender effect in which some females may tend to become depressed within distressed relationships while males may in some cases resort to alcohol as a maladaptive way to cope with interpersonal conflict. In any case, the combination of depression, marital distress, and a history of alcoholism predicted withdrawal from the study and separation.

The couple that dropped-out of EFT before mid-treatment reported that marital therapy was inappropriate for their needs; the 2 couples that dropped-out of PT reported that they had problems with the medication they were receiving. It would appear that side-effects of the antidepressants quickly reduced

faith in pharmacotherapy because both females who dropped-out of PT refused to have their medication adjusted.

Free and Oei (1989) have noted the lack of systematic research on drop-outs from treatment studies in depression, but medication side-effects and the inability to perceive the relevance of the treatment program appear to be quite common reasons for withdrawal.

With the exception of a history of alcoholism in the male partners of one half of the drop-out group, none of the variables examined in this study predicted outcome. The review of demographic and clinical variables that was undertaken in order to identify characteristics predictive of outcome suggested that the size and homogeneity of the sample prevented the identification of such factors. The absence of any real degree of variability in secondary diagnostic classifications on the CDIS also mitigated against the discovery of predictor variables.

Implementation of Treatments.

The implementation of EFT by relatively inexperienced therapists produced moderate to large treatment effects and provides some support for the use of an experiential-systemic intervention in the treatment of depression and marital distress. The integrity of treatment delivery was supported by the percentage of EFT interventions coded by the judges and by the level of reliability between the judges. However, it is

important to consider the absence of a control group in the evaluation of treatment gains reported in this study. It is possible, though unlikely, that treatment gains obtained in this study could have been found in a wait-list control group or as the result of minimal treatment. Indeed, the value of a minimal intervention in the treatment of depression has recently been reported by Elkin et al. (1989) in the NIMH study. These authors suggest that a limited course of supportive psychotherapy may be sufficient to produce a significant reduction in depressive symptoms in less severely depressed patients. The longer-term value of this form of minimal treatment has yet to be reported and it is not currently possible to evaluate the value of minimal treatment in a population exhibiting both depression and marital distress.

It is increasingly apparent that a set of common psychological factors are involved in treatment gains across treatment modalities. McLean and Carr (1989) have suggested that non-specific treatment effects are responsible for between 50% and 70% of treatment outcome results, and Robinson et al. (1990) have suggested that depression may be particularly responsive to common therapeutic factors in psychological and placebo interventions. It remains unclear which aspects of interventions in depression are responsible for producing treatment effects but it is likely that gains for couples in EFT in this study were due in part to the role of common or non-specific psychological

factors. In addition, Robinson et al. (1990) have emphasized the role of investigator allegiance in producing differences in outcome and this probably played a role in the gains reported in this research.

This study did not include a direct method to evaluate patient compliance with pharmacotherapy or the attainment of a sufficiently therapeutic dose of medication, such as plasma tricyclic level determinations (Noll et al., 1985). However, patients in PT did maintain contact with the psychiatrist and also provided receipts to be reimbursed for their medication. The non-responders to pharmacotherapy received a good deal of clinical attention for the management of their medication and completed the full treatment protocol. In addition, the proportion of non-responders in this study corresponds to the range of non-response to pharmacotherapy that is found when a significant psychosocial stressor is present (Akiskal and Simmons, 1985).

Treatment Effects

The failure to find support for differential patterns of effectiveness of EFT and PT in the treatment of depression and marital distress can be understood in part by the very low power to detect any such differences. Power for the majority of comparisons in this study varied between .10 and .20, and this significantly reduced the probability of finding a differential

pattern of results. The use of a planned comparison strategy could not overcome the limitations imposed by the combination of initial small sample size, attrition, and error variance. Ultimately, this study was characterized by conditions in which only very large effects could be detected.

Furthermore, the use of planned comparisons appears to be a mixed blessing: While this approach avoided the use of post-hoc comparisons and the partitioning of alpha (which, under the present conditions, may have resulted in the failure to find some within-group effects), it also limited data analysis. For example, orthogonality of the comparisons had to be respected in order to avoid partitioning of alpha, and this meant that only completers could be included in the analysis. Nevertheless, the benefits of the planned comparison strategy tend to outweigh the costs in the present study as none of the predicted patterns of differential effectiveness were supported in treatment x assessment interactions in the ANOVA's. The planned comparisons therefore allowed for more investigation than would have been possible within the post-hoc approach.

Within-group hypotheses for EFT. Females in EFT displayed the hypothesized linear trends in the reduction of depressive symptomatology and increase in marital adjustment over the course of the assessment periods. EFT appears to have been effective in the treatment of depression in females, not only in terms of significant symptom reduction, but also in terms of clinically-

significant gains. The effect size obtained by females in EFT on the IDD compares very favourably with those presented in meta-analyses of the treatment of depression (cf. Steinbrueck et al., 1983), and suggests moderate to large treatment effects. Indeed, by 6-month follow-up there were no women in EFT who satisfied diagnostic criteria for depression, though one female exceeded the criterion level for depressive symptomatology by 3 points. Based on the group means on the IDD at three and six-month follow-up, females in EFT could not be distinguished from a non-depressed population (Zimmerman et al., 1986, 1987).

The majority of females in EFT also showed significant gains in marital adjustment over the assessment periods. As a group, the marital adjustment of females in EFT increased over the follow-up period and this mirrored the trend in the reduction of depressive symptomatology. However, group means on the DAS at three and six-month follow-up still place females in the distressed range in comparison with norms on this measure (Spanier, 1976).

While it is important to consider the role of non-specific treatment effects and the fact that females in EFT were still in the distressed range of scores on the DAS, significant statistical and clinical gains and the faithful implementation of the treatment protocol allow for some degree of speculation on the effects of EFT.

The success of EFT with female partners can be understood

in terms of the therapeutic restructuring of intimate bonds in their relationships. The primary focus of treatment with EFT was upon the affective experience of the partners and on the patterns of interaction that maintained distance and prevented emotional closeness. The lack of emotional intimacy has been recognized as an important element in the etiology of depression (Brown et al, 1978) and EFT specifically addressed the emotional experience of the partners within the context of their relationship. In doing so, EFT strengthened the attachment bonds that existed between the partners and allowed for the emergence of new patterns of interaction that would in turn allow for the on-going renewal of the experience of emotional intimacy. EFT proved to be an effective intervention with women precisely because it intervened at the level of their emotional experience in the context of their intimate relationships. A longer follow-up period is needed to fully assess the impact of EFT and to determine if the attainment of new levels of emotional intimacy and of new patterns of interaction will continue to influence the marital adjustment of both partners in the relationship and protect against the recurrence of depression.

The male partners in EFT did not reveal any significant changes in levels of depressive symptomatology over the course of the study, nor did they display the hypothesized linear trend in the increase of marital adjustment as a result of treatment with EFT. A total of 3 males in EFT did display clinically-

significant gains in marital adjustment, but statistical significance was not attained on the basis of pre-test to post-test and treatment phase to follow-up comparisons. An examination of Figure 5 reveals that mean scores on the DAS for males and females in EFT tend to follow each other quite closely, but the apparent gains of males in this group did not attain statistical significance. Though the majority of both females and males show clinically-significant gains as a result of treatment in EFT, only 2 of the 5 couples in this group satisfy the combined criteria of remission of depression and clinically-significant improvement for both partners on the DAS.

Jacobson et al. (1984) have noted that couples need to attain a certain degree of marital satisfaction in order for the relationship to remain viable on a long-term basis, but it is difficult to evaluate the relative contributions of the levels of marital adjustment of male and female partners to future levels of adjustment. As 4 out of 5 female partners in EFT showed clinically significant improvement on the DAS from pre-test to 6-month follow-up, it is possible that males in EFT could show changes in marital adjustment over a longer period of time than examined here.

It is interesting to note that EFT appears to have had an impact on the female partners and not male partners, while the opposite pattern is found in the PT group. Contrary to the hypotheses, males in PT fared better than their counterparts in

EFT. Though the sample size limits the ability to generalize from these results, there may exist a differential pattern of response to family interventions in depression. Keitner and Miller (1990) have reviewed results of studies investigating family functioning in depression and noted that males have been found to remain unaffected or to show even a slight worsening as a result of treatment.

Future research may focus on the patterns of change for both partners in the couple and how these contribute to marital adjustment over time. The interplay of the remission of depression and increases in marital adjustment for couples in EFT may potentiate each other so that the couple relationship provides a greater degree of protection against relapse of depression, with the maintenance of psychological well-being in both partners allowing for optimal levels of interpersonal functioning. Alternatively, changes brought about by marital interventions may prove to be catalysts for separation, and this may be the best outcome for individual well-being.

The overall assessment of the effectiveness of EFT suggests that it is a promising intervention in depression and marital distress, though a larger sample and a longer follow-up period is required to examine the rate of relapse of depression. The majority of females in EFT displayed significant clinical changes in their levels of marital adjustment and in the reduction of depression, and most males also showed clinical

improvement in marital adjustment. It remains to be determined if there exists a threshold of adjustment that needs to be attained in both individual and interpersonal well-being that allows for the maintenance of clinical gains and for a long-term reduction in the risk of relapse.

Within-group hypotheses for PT. Females in PT did not display the hypothesized quadratic trends in either depression or marital adjustment and did not therefore exhibit relapse of either depression or marital conflict. Residual levels of depressive symptomatology remained fairly elevated for this group and only 2 females in PT met the criterion levels for the remission of depressive symptomatology at 6-month follow-up. It remains to be determined if such levels of residual symptomatology play a role in the recurrence of depression and in the exacerbation of marital conflict, or if these symptoms gradually abate with time. Based on group means on the IDD at post-test, three and six-month follow-up, females in PT cannot be distinguished from a depressed population in comparison with norms on the IDD (Zimmerman et al., 1986, 1987).

Females in PT displayed a significant reduction in depressive symptomatology from pre-test to post-test, which suggests that the individualized program of pharmacotherapy was effective. A maximum effect size of 2.19 on the IDD at 6-month follow-up supports the effectiveness of the drug protocol. However, 2 females did not respond to pharmacotherapy despite the

tailoring of the medication to both their presenting and subsequent symptomatology. As noted previously, these non-responders were from couples that had the lowest DAS scores at pre-test, though these scores were not significantly different from those of other couples in the sample. It is possible that there exists a range in the level of marital distress in which pharmacotherapy cannot be reasonably expected to produce optimal treatment effects and research is needed in this area. It was beyond the scope of this study to have the non-responders crossover to EFT in order to examine the effects of couple therapy on depression, but this would be a worthwhile strategy for future research.

The reduction of depressive symptomatology in female partners in PT was not accompanied by the hypothesized increase in marital adjustment. Indeed, marital adjustment does not appear to have been affected by pharmacological treatment either during treatment or after a significant reduction of depressive symptomatology as follow-up levels of marital adjustment do not differ from those of the treatment phase. It appeared quite reasonable to predict that marital adjustment would increase if only as a function of a greater sense of general psychological well-being that would attend a significant reduction in depressive symptoms. Overall, these results do not support the theory that marital conflict is epiphenomenal and remits with the alleviation of depression (cf. Haas et al., 1985).

For some couples in PT, marital distress may have been epiphenomenal to the depressive episode and these couples may have marshalled certain relational skills that allowed for the normalization and improvement of the relationship with the remission of depression. For others, the particular qualities of marital conflict that accompanied the development and maintenance of depression may have overwhelmed the individual and collective resources of the couple and interfered with response to treatment.

Two couples in PT did meet the combined criteria for remission of depression and clinically-significant improvement on the DAS at 6-month follow-up, and it is therefore necessary for future research to identify personal and relational variables that will predict treatment outcomes.

It is of particular note that levels of marital adjustment for males in PT increased significantly from pre-test to post-test though their relationships were not directly treated. It would appear that a significant reduction in depression in their partners increased the males' sense of well-being within the relationship. It is possible that males in PT no longer carried the interactive burden in the relationship (Biglan et al., 1985), and that the reduction of depression in their partners brought more flexibility to the patterns of exchange within the couple (Kahn et al, 1985). In addition, the gains in marital adjustment to post-test may have been in some sense easier for males in PT

than for males in EFT. Males in PT may have received the benefits of no longer having a depressed spouse without having had to undergo the therapeutic process that couple therapy would have demanded of them. However, the females partners of PT males did not show an increase in marital adjustment and the gains in marital adjustment for males in this group may be short-lived as marital conflict tends to be recognized and experienced by both partners (Gotlib and Whiffen, 1989; Ruestow et al., 1978).

Males in PT did not display the hypothesized quadratic trend in their levels of marital adjustment over time, but the hypothesized lack of longer-term benefits appears supported by the finding of no significant differences between the treatment and follow-up phases of the study. Although there was a significant increase in marital adjustment to post-test, only 2 males in this group showed significant clinical gains on the DAS from pre-test to 6-month follow-up. Not unlike couples in EFT, the trends in levels of marital adjustment over the assessment periods for males and females in PT appear to follow each other closely (Figure 6).

Overall, the pattern of results for the PT group were somewhat mixed. Two couples showed significant gains in terms of depression and improvement of marital adjustment in both partners, whereas 2 females failed to respond to pharmacotherapy and 2 males displayed a significant clinical deterioration in marital adjustment from pre-test to 6-month follow-up. Research

is required to identify the characteristics of the successful and non-successful responders and to delineate patterns of interaction within couples that facilitate or hinder response to pharmacotherapy.

Between-group hypotheses. The low power of the between-group comparisons resulted in the inability to detect statistically significant differences in depression and marital distress. However, based on the criteria for clinically significant change in depression and marital adjustment, there was a potentially important difference between the treatment groups.

At 6-month follow-up, there was a difference of 1.49 effect sizes between females in EFT and females in PT which suggests that there were clinically significant differences between groups in marital adjustment. Based on an examination of the obtained effect sizes, females in EFT continued to improve in terms of their levels of depression and marital distress after post-test, but females in PT maintained their levels of depression and their levels of marital adjustment deteriorated.

Conclusions and Direction for Future Research

The results of this study support the use of a systemic-experiential intervention for the treatment of depression and marital distress. Though findings of this study do not support the central hypotheses concerning a differential rate of relapse

as a function of treatment modality, there is nevertheless evidence of different effects of the treatment programs based on the examination of within-group performance.

The contrast analytic techniques employed in this study could not overcome the very low power to detect statistically significant between-group differences, nor could they fully overcome the degree of experimental error that was present in both groups. The patterns of response to treatment and the direction of clinically significant change tended to support the hypotheses of the study though statistical significance was often not achieved.

As noted by McLean and Carr (1989), there is a need at this juncture to focus research away from the episode of depression and onto the examination of longer-term functioning after recovery and to design interventions that will prevent relapse. Similarly, Robinson et al. (1990) suggest that studies concerned primarily with the immediate effectiveness of treatments may well have furnished as much information as their design allows. While there is now a consistent call to design research that will provide new information about depression, research has largely ignored the role of the couple relationship in either the development, course or recurrence of depression. Indeed, none of the research included in current meta-analytic studies on the effectiveness of treatments for depression has controlled for the quality of the couple relationship. With

continued research, factors related to the couple relationship may emerge as predictors of not only treatment effectiveness, but of long-term functioning as well.

Future research in this area will require a larger sample and the extension of the follow-up period in order to investigate the interaction of intrapsychic and interpersonal factors. The examination of specific relationship patterns as well as the development of research on the processes of psychotherapeutic change will considerably benefit our understanding of the nature and course of depression within the interpersonal context. In this study, an intervention that focused on the patterns of interaction and the affective experience of the partners produced a number of significant results. Future trials would benefit from a combined process-outcome approach so that extra-therapy changes can be more directly related to in-therapy processes.

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Appendix A

Treatment Manual
Emotionally Focused Therapy
Modified for the Presence of Depression

Session 1

Assessment Procedures

This assessment is conducted by the therapist after an initial screening for the presence of non-endogenous clinical depression and marital distress. The question of suicide will have been specifically evaluated as part of the diagnostic process. While individuals who present with a high risk of suicide will be excluded from treatment with EFT and referred for immediate treatment elsewhere, it is nevertheless important for the therapist to assess suicide potential in the depressed partner. The assessment process in EFT consists of one conjoint session and an individual session for each partner. Assessment is not considered to be distinct from treatment and steps 1 and 2 of EFT often take place in the first three sessions.

Therapist Tasks

1. Delineate conflict issues more precisely and explore attempted solutions. Identify themes in the core struggle. The issue of depression in one partner is to be specifically addressed within the context of the relationship.
2. Discuss each partner's perception of the problem. Observable behaviours are to be noted but the focus is upon how each partner sees the self and the other in the relationship and the stances or positions that each takes in the relationship. Determine the attributions each partner makes concerning the depression, and its connection to marital distress.
3. Note and explore patterns in the process of interaction. Identify sequences of problematic reactions as the couple narrates or enacts them. How does the couple connect, maintain distance, attempt to influence each other and the therapist?
4. Enquire about the history of the relationship and the history of depression. Note the frequency of depressive episodes within the relationship and explore each

partner's perception of precipitating events. Consider what patterns of interaction may elicit or maintain the depressive symptoms. If possible, validate depressive responses and partner responses in terms of intra and interpersonal experience in the relationship. Note themes such as symbolic or real loss, isolation and frustrated dependency needs. The strengths of the relationship when it is functioning well are assessed as are norms of power/control, dependence/independence and closeness/distance .

5. Obtain a brief life history of each partner. Note partners' views of male and female roles. Hypothesize vulnerabilities and sources of anxiety stemming from life experiences which may be reflected in the present relationship. How do interaction patterns impact the individual's self-concept and self-esteem?

6. Present treatment rationale and format of therapy. The therapist frames problems in terms of deprivation, unmet needs and interacting sensitivities in the relationship. Problems are framed in terms of stuck emotional chain reactions which have become automatic and which both partners have participated in building.

Homework:

Both partners are asked to note events and interactions that are associated with frustration and/or increased dysphoria.

Treatment Rationale

You have come for treatment because one of you is experiencing depression and also because you are experiencing some distress in your relationship. Often these two things go together, one partner feeling depressed and both feeling dissatisfied with the relationship. How happy we are in our closest relationship and how happy and hopeful we are in general usually go together, so it makes sense to improve the relationship. Sometimes the relationship can make it difficult to change our responses; we can get into a pattern or a set of habits so that we automatically feel sad, angry or depressed. We have found that helping couples to improve their relationship so that both partners are more satisfied is a real source of support. Improving the relationship helps the partners deal with the symptoms of depression and other emotional responses and also helps protect the depressed partner from getting depressed in the future.

We do not focus very much on the very first causes of depression, but on what maintains the depression and the distress in the relationship. Your relationship may not have been the original cause of depression in one of you, but it is very much a part of the solution. Some of the elements of depression and marital distress can only be changed by making your relationship more positive; for example, a sense of isolation or unspoken resentments can contribute both to depression and to marital distress. It's hard to feel good if you feel isolated or unhappy in your marriage. We assume that people get depressed for very good reasons, even if those reasons are not always clear when you are feeling depressed. Most of us get depressed at some time in our lives, often because we are unhappy and cannot see how to change things for the better.

We will focus in therapy on the emotional responses you both have and how we can help you to change the way you are together so that both of you can be happier. When a relationship becomes distressed often both partners feel deprived, they don't really get what they need from each other. Hopefully we can help you both talk about what it is you need in the relationship and about ways you can respond to each other in more satisfying ways. How fast we progress and how far we go is really up to you.

Session 2: Individual Assessments

After the first conjoint session, the therapist meets with each partner individually for the second session of EFT. The purpose of the individual sessions is to allow each partner the opportunity to share their perceptions of themselves, their partner, and their relationship in more depth with the therapist. While each client is free to discuss this session with their partner, the therapist explicitly labels these sessions as confidential and does not use material from these sessions in therapy without the consent of the clients. The rationale presented to the couple for the individual sessions is that each partner is an individual within the relationship and that a better understanding of individual needs and expectations by the therapist will facilitate the process of therapy.

Information revealed in the first conjoint session is expanded upon in the individual sessions. The therapist addresses issues such as commitment to the relationship in more depth as this type of issue is more effectively approached without the presence of the partner. The therapist also explores what kinds of interventions the client is likely to respond to and how receptive the client is to the treatment rationale.

Themes for individual session with non-depressed partner.

Examine the depressive symptoms from this partner's perspective and how this partner understands depression in the relationship. Explore the effects of depression and marital distress on this partner and how they are responded to, noting whether there is a tendency for this partner to feed into a negative self-image in the spouse. The therapist validates the difficulties involved in living with a depressed partner.

Themes for individual session with depressed partner.

Explore specific symptoms of depression and approach the question of suicide within a framework of validation and normalization of the depressive response. Obtain more detail concerning the history of depression and determine past and current coping strategies. Explore how this partner views the relationship and the way it contributes to depression, and how the depression affects the relationship. The therapist helps the client develop coping strategies that can be applied without the assistance or participation of the partner.

Note:

The therapist is to avoid adopting a position wherein the depressed partner is perceived as being the problem. The central position to be taken by the therapist is that the relationship is of primary interest and concern and that it is the relationship that is being treated. Accordingly, an essential aspect of the assessment process is to frame depression and marital distress in such a way as to make them workable within EFT and to avoid reducing depression to the status of a purely intrapsychic phenomenon.

The goal of the therapist throughout these sessions is to establish a working alliance, to create rapport and trust with both partners and to give them hope for positive outcomes. As these are information-gathering and diagnostic sessions, much more of the interaction will be therapist-client in nature than in the following sessions where client-client interaction will increase. The therapist by his/her behaviour also creates expectations for the process of the sessions, for example by encouraging the clients to speak for themselves and not for the other and by discouraging disruptive interruptions.

Typical therapist activities:

Empathic responding

Direct questions and probes as to issues, interaction patterns and intrapersonal anxieties

Observe/hypothesize the central conflict in the relationship

Framing of conflict and depression in terms of treatment perspective

Steps of Therapy

The basic treatment steps of EFT are implemented as usual. Depression is perceived as a particular kind of intrapsychic/interpersonal experience that is to be dealt with within the context of the relationship.

Goals

1. To restructure dysfunctional or negative cycles of interaction and to establish new cycles of accessibility, responsiveness and acceptance.
2. To enhance communication and intimacy.
3. To reduce the symptoms of depression as a function of goals 1 and 2.

This therapy tends to occur in a circular rather than a linear sequence. This manual will therefore focus upon the steps of the process of treatment rather than attempt a session by session account. The steps in the process and the central interventions of EFT follow.

1. Define issue as presented.

Define relationship problems as they are seen by the clients and how they relate to the episode of depression. Evaluate the impact of depression on the relationship, be it in terms of restricted social activities, increases or decreases in various patterns of communication or any other area that either partn considers to be important. Establish each person's view of the relationship and of the depressive episode. Develop shared goals. Each person is encouraged to make a full and complete statement of their position.

Therapist Interventions:

Direct questions and probes; empathic reflection and evocative responding; summarize and integrate information; validate opposing reality claims and positions in terms of

intrapsychic and interpersonal elements; legitimize depressive responses within a framework of intrapsychic and interpersonal needs; provide education concerning depression; access action tendency that is inherent in emotion.

2. Identify negative interaction cycles.

An example of such a cycle might be: " When you demand attention he withdraws by leaving the room. You become more upset as he refuses to talk to you. You finally give up and also withdraw. Finally, after a day or so, he initiates superficial contact". In such cycles each of the partners' solutions to the problem intensifies the problem for the other. The therapist explores behaviours, feelings and perceptions involved in the cycle in order to clarify each partner's position. The therapist is alert to patterns of interaction which may serve to maintain depression in one of the partners, such as a withdrawal into helplessness as a result of the emotional inaccessibility of the spouse, or perhaps the obtaining of caring and attention from the spouse which otherwise are not present to the same degree. It is to be noted that a given pattern of negative interaction will not necessarily lead to the development of depression in the couple; rather, it is the particular pattern of communication and interaction that characterizes the relationship and the feelings and self-perceptions of the partners that must be identified in therapy. Behaviour toward the partner is considered to be linked to underlying feelings.

Cycles of interaction may be talked about and reconstructed, or they may occur in the therapy session where the therapist identifies and comments upon them as they occur. Negative messages such as blaming the partner are explored in terms of underlying needs. The framing of a behaviour within a cycle of interaction fosters a perspective of mutual or shared responsibility. The partners are encouraged to develop their positions fully and their positions are validated.

Therapist interventions:

The therapist identifies and connects elements in the cycle by means of questioning, exploring, clarifying and interpreting each partner's perceptions, feelings and reactions to the other. Negative alienating reactions occurring in the session are pointed-out and discussed, such as mind-reading of the other partner or making negative dispositional attributions. The therapist observes and facilitates the enactment of problematic interaction patterns. Blaming behaviour is not ruled-out as being unhelpful but used by the therapist to search for the feeling underlying specific accusations. It is developed

further rather than challenged as unacceptable. The therapist uses open-ended explorations and only interprets if clients are unable to find their own experience.

Examples: a) To clarify cycle and positions the therapist says: What did you do then? or When your partner does ___ what do you do? You criticize him for never holding you and for being cold to you. When he does this, how do you feel?

b) To draw attention to interactional patterns the therapist says: It seems to me that when your partner talks you interrupt; I'm wondering what is happening for you, what is it you are experiencing when you do this?

3. Access and accept unacknowledged feelings underlying problematic interactions.

Emotional responses at the periphery of awareness are attended to, heightened and linked to self-perceptions. Particular attention is paid to vulnerabilities, fears and unexpressed resentments. Significant events arousing strong emotion are at times reconstructed or enacted in the session and are focused upon to reveal underlying emotion. Clients are thus exposed to aspects of self and of the other that were not previously acknowledged. This is to be distinguished from the ventilation of superficial or defensive reactions; it is a new synthesis of emotional experience. An example of such a superficial reaction would be an angry reaction expressed with no awareness of a sense of threat or underlying fear.

Therapist interventions:

Evocative responding is used in an attempt to clarify and heighten the client's emotional experience in therapy and to make the automatic response a focus of conscious awareness. This intervention involves focused reflection, probing and reframing by the therapist. The therapist may attempt to expand and heighten feelings or provide sentences for the client to finish. The therapist may also attend to bodily sensations that the client is experiencing and to non-verbal behaviour in general. Images and metaphors may also be created to heighten and clarify emotional responses. The focus is upon inner experience and the owning of that experience, and experience is validated by the therapist. There is a continuing focus on emotional experience occurring in the present. For example, the depressed individual may display a devalued sense of self as a function of the cycle of interaction within the relationship. The role of the therapist is to validate that experience within the context of the relationship and to access underlying emotions so as to bring them to awareness.

4. The problem is redefined in terms of newly synthesized emotional experiences.

The problem is now construed in terms of adult unmet needs and particularly in terms of deprivation and alienation. Interacting sensitivities are explored and interpreted, and individual experience is translated into the meaning carried for the other partner and the relationship. Such interpretations integrate the clients' affective, cognitive and behavioural experiences.

Fears and coping reactions are validated and related to the responses taught in the family of origin and to key self-images. The current need for these responses is explored. New perspectives of the relationship and of the partner's behaviour created by the new emotional synthesis are now integrated. For example, a blaming response may be seen as an expression of a need for love, or a withdrawal as a fear response rather than an attempt to punish or hurt. Attempts are made to capture these new feelings as they occur in interactions in the session. The clients are encouraged to interact with each other in the sessions and to share their underlying feelings as they emerge in the session in reaction to their partners.

Therapist interventions:

The impact on the relationship of the personal vulnerabilities explored in step 3 are now clarified. The therapist interprets elements in the interactional sequence in terms of underlying needs and fears which stem from interacting sensitivities. For example, Jim is vigilant regarding actions of Jill's that he perceives as rejecting and responds by bullying; Jill is sensitive to bullying and responds by rejecting Jim. This cycle prevents contact and the meeting of the partners' needs in the relationship. Evocative responding may also be used as well as interpretations of issues and defensive reactions in terms of family of origin schemata. A present-centered focus is maintained and partners are regularly asked what they feel in the moment in response to their partner's statements.

5. Identifying with disowned aspects of experience in the redefined cycle.

The cycle, redefined in terms of underlying emotional experience and needs, is enacted deliberately in order for the partners to become more aware of their underlying needs and to gain a sense of control of these automatic responses. This is not to say that depression is reinforced in the individual as the depressive response is enacted with the awareness by both

partners of its role within the relationship. Aspects of experience, such as the withdrawer's fear of being overwhelmed and need to protect and the blamer's feelings of being unloved and need for support are fully discussed and then prescribed. Each person is asked to identify with disowned aspects of their experience, to develop their position fully and to deliberately engage in some of the behaviours associated with their previously disowned feelings and needs. This is an intrapsychically oriented intervention focusing on enacting disowned parts rather than enacting the negative interactional cycle as is the case with some paradoxical interventions. If one partner feels too dependent or feels anxiety about being intimate, he or she is asked to identify with the dependent or fearful aspect of their experience rather than to deny or disown them. Both partners are reassured at this point that even though it may seem strange to act in a manner that they construe as problematic (such as dependent or afraid), that these are the feelings they are actually experiencing and that this is only being more congruent.

Once partners have identified with disowned aspects of their experience it becomes possible to integrate these aspects intrapsychically and interpersonally. Identifying with disowned aspects of experience is worked on in the sessions and given as homework; clients are asked to allow their previously disowned aspects of experience to emerge rather than attempting to negate that aspect of themselves. For example, the depressed partner may be asked to own their sense of helplessness by identifying with that aspect of themselves and thereby becoming more aware of the role that it plays both personally and interpersonally. Similarly, the partner of the depressed individual could be asked to own their role in either eliciting or maintaining helplessness in their partner and to identify with this aspect of their experience.

Therapist interventions:

The therapist suggests that clients identify fully with previously disowned aspects of their experience. An ultimate acceptance of each person's position, feelings and needs is conveyed by suggesting that people do what they are doing rather than trying not to. Although there is a prescription of certain behaviours and experiences, the focus is on having people do what they do with full awareness and responsibility rather than to prescribe a paradox to gain therapeutic control of the interactional cycle.

6. Acceptance of partner's position

The focus is now upon the communication to the partner of the newly experienced emotional responses, and the partner's acceptance of these responses. The therapist facilitates acceptance of the other's needs on the part of each partner primarily by tracking interactions and blocking or exploring non-accepting responses. The therapist helps the couple construct the conversation they might have had if they had been in touch with and able to communicate their feelings and vulnerabilities. The phobic avoidance of the expression of vulnerability is usually confronted in this process. This session is not directed toward the teaching of the specific skill of empathic listening but toward helping partners reveal new aspects of themselves to their mates and facilitating a new intimacy and contact between the partners. Blocks to one partner's ability to hear and accept the other's experience are examined and interpreted in terms of that partner's view of self, past learning in the family of origin and catastrophic fears. The therapist facilitates acceptance of self and the other in contrast to the usual pattern of reciprocal disqualification which occurs in distressed relationships.

Therapist interventions:

Evocative responding; reframing in order to clarify relationship events; drawing attention to the nature of responses and the impact of these responses, and suggesting alternatives.

Example: a) "I feel alone (experience of abandonment and helplessness integrated in previous steps) because you never show yourself, your feelings; you never really show me how you feel".

b) "I don't show you my feelings... well, I suppose I don't, I'm afraid to show you because when I've tried I got attacked".

a) "Maybe I get angry and find it hard to hear".

Therapist: (to "a") "How can "b" show you his feelings in a way that you can hear them?"

7. Expression of needs and wants

The emotional synthesis of the issue in terms of individual and interpersonal experience leads to a clarification of needs and wants in the relationship. One partner can now directly ask for what he or she wants or needs from the other, and the implications of these desires for the individuals and the relationship can be examined. Key attitudes underlying the positions each partner has taken in the relationship begin to be explored.

Therapist interventions:

Focus interaction upon the expression of needs and wants. Clarify, reframe and evocatively expand such needs as necessary.

8. New Solutions

The statement of needs and wants, accessed, integrated and accepted by the spouse, leads to the creation of new alternatives to the couple's struggle and of the presenting problems which are symptomatic of this struggle. The therapist clarifies and explores aspects of alternative solutions with the couple and again helps them to confront blocks to positive responding. The therapist highlights new positive patterns of interaction. New solutions constitute a redefinition of the relationship as, for example, a relationship may become one in which one person can state needs and the other can give support rather than a relationship in which one has to coerce the other into responding. New solutions are assessed in terms of the needs of both partners and their general feasibility, and are enacted in the session when possible.

Therapist interventions:

Clarify and explore new solutions; for example, how a partner can help the other trust him and feel safe in the relationship by engaging in activities that he knows will reassure his mate that she is important to him. This sense of safety will then enable her to respond to him in ways that he finds satisfying.

9. Integrate new perspectives

The therapist helps the couple develop a shared perspective, a detailed picture of the relationship, and to engage in metacommunication as to the past and present nature of the relationship. The therapist clarifies new positions and positive sequences of emotional response, as well as the new interactional cycles. The past relationship positions taken by the partners and the negative cycle are discussed. New goals for relationship development as well as news of creating and maintaining intimacy are explored and discussed.

Therapist interventions:

Summarizing. Termination issues.

Process Note:

These nine steps tend to be cyclical; the therapist may circle back to previous steps if necessary, or begin the cycle of steps focusing upon a new aspect of the couple's core struggle. In the sessions, the partners continue to expand their awareness of their stances in the relationship and the needs and fears underlying these positions. As positions, interaction patterns and key underlying emotional responses become clearer, the couple's manner of interacting becomes less reactive and automatic and alternative behaviours, feelings and thoughts are experienced and experimented with. The couple develops a shared perspective of the relationship and begins a movement toward emotional intimacy. As previously unaccepted aspects of the self have been accessed, validated, expressed and integrated into the relationship, anxiety-reducing defensive processes are less and less evident. The therapist typically becomes less involved as the partners interact more and help each other in the therapeutic process.

Termination Session

This session will always follow a certain format. The treatment process is reviewed with an emphasis on new patterns of interaction, and the present state of the relationship is assessed in terms of trust, open contact, closeness and positive affect. Individual and interpersonal elements that were at play in the development or maintenance of depression are reviewed and assessed within the perspective of the present relationship. Post-treatment measures are completed.

A more detailed description of EFT can be found in Greenberg, L. & Johnson, S. (1989). Emotionally Focused Marital Therapy. (Guilford Press).

Implementation Checklist for EFT
with a Depressed Partner

Rater: _____

Couple No.: _____ Session No.: _____ Therapist: _____

This implementation checklist is used to rate therapist statements during two 10-minute segments of therapy. One segment is to be from the middle of the session, and the other from the last third of the session.

Place a checkmark beside an intervention each time it is used during this session. The checkmarks are added to provide the total number of responses coded. If you cannot code an intervention within the categories provided, give it a descriptive label and provide a brief example of the statement. For example, "Bargaining/contracting" would be a good description if the therapist says: "OK- but would you promise to take out the garbage if Louise is more affectionate with you?".

Systemic/Interactional Interventions

1. Defining depressive symptoms in interpersonal terms.

2. Clarifying/Elaborating the basic positions and patterns of interaction. Framing behaviour in terms of cycle.

3. Elaborating/exploring patterns of closeness and distance, dependence and independence.

4. Relating positions or cycle of interaction to depression.

5. Interpreting/validating how self is experienced and defined in the negative cycle of interaction.

6. Clarifying impact of relationship on personal vulnerabilities and link to individual behaviour.

7. Exploring blocks to listening, to each partner's acceptance of the other's communications of feelings, self-concept.

8. Facilitating new perceptions and responses to partner. Clarifying/elaborating shared perspectives and new positions.

Emotionally-Focused Interventions

9. Using evocative and empathic responses to carry forward emotional experience.

10. Defining the problem in terms of underlying emotions or unmet needs.

11. Probing for, heightening, elaborating emotional experience (especially fears, vulnerabilities and feelings such as loneliness and isolation associated with depression).

12. Clarifying/reframing triggers and responses to emotional experience.

13. Validating/framing blame and negative messages in terms of underlying emotions.

14. Facilitating expression of emotional needs and wants.

15. Encouraging/inviting partners to express emotional material to each other.

Total number of responses coded

Responses not coded (other)

Descriptive label

Example

Appendix B

Measures

1. Inventory to Diagnose Depression (IDD)
2. Beck Depression Inventory (BDI)
3. Dyadic Adjustment Scale (DAS)
4. Miller Social Intimacy Scale (MSIS)

INVENTORY FOR THE DIAGNOSIS OF DEPRESSION

INSTRUCTIONS

1. On this questionnaire are groups of 5 statements.

2. Read each group of statements carefully. Then pick out the one statement in each group that best describes the way you have been feeling the PAST WEEK. Circle the number next to the statement you picked.

3. For every group in which you circled #1, 2, 3 or 4 answer the follow-up question as to whether you have been feeling that way for more or less than 2 weeks.

PAST WEEK

Name: _____

Subject #: _____

Date: _____

- 7) 0 I do not feel sad or depressed.
 1 I occasionally feel sad or down.
 2 I feel sad most of the time, but I can snap out of it.
 3 I feel sad all the time, and I can't snap out of it.
 4 I am so sad or unhappy that I can't stand it.
- *** If you circled #1, 2, 3 or 4: Have you been feeling sad or down for more or less than 2 weeks? more less
-
- 8) 0 My energy level is normal.
 1 My energy level is occasionally a little lower than normal.
 2 I get tired more easily or have less energy than usual.
 3 I get tired from doing almost anything.
 4 I feel tired or exhausted almost all of the time.
- *** If you circled #1, 2, 3 or 4: Has your energy level been lower than usual for more or less than 2 weeks? more less
-
- 9) 0 I have not been feeling more restless and fidgety than usual.
 1 I feel a little more restless and fidgety than usual.
 2 I have been very fidgety, and I have some difficulty sitting still in a chair.
 3 I have been extremely fidgety, and I have been pacing a little bit almost every day.
 4 I have been pacing more than an hour per day, and I can't sit still.
- *** If you circled #1, 2, 3 or 4: Have you felt restless and fidgety for more or less than 2 weeks? more less
-
- 10) 0 I have not been talking or moving more slowly than usual.
 1 I am talking a little slower than usual.
 2 I am speaking slower than usual, and it takes me longer to respond to questions, but I can still carry on a normal conversation.
 3 Normal conversations are difficult because it is hard to start talking.
 4 I feel extremely slowed down physically, like I am stuck in mud.
- *** If you circled #1, 2, 3 or 4: Have you felt slowed down for more or less than 2 weeks? more less
-
- 11) 0 I have not lost interest in my usual activities.
 1 I am a little less interested in 1 or 2 of my usual activities.
 2 I am less interested in several of my usual activities.
 3 I have lost most of my interest in almost all of my usual activities.
 4 I have lost all interest in all of my usual activities.
- *** If you circled #1, 2, 3 or 4: Has your interest in your usual activities been low for more or less than 2 weeks? more less
-
- 12) 0 I get as much pleasure out of my usual activities as usual.
 1 I get a little less pleasure from 1 or 2 of my usual activities.
 2 I get less pleasure from several of my usual activities.
 3 I get almost no pleasure from most of the activities which I usually enjoy
 4 I get no pleasure from any of the activities which I usually enjoy.
- *** If you circled #1, 2, 3 or 4: Has your enjoyment in your usual activities been low for more or less than 2 weeks? more less
-
- 13) 0 I have not noticed any recent change in my interest in sex.
 1 I am only slightly less interested in sex than usual.
 2 There is a noticeable decrease in my interest in sex.
 3 I am much less interested in sex now.
 4 I have lost all interest in sex.
- *** If you circled #1, 2, 3 or 4: Has your interest in sex been low for more or less than 2 weeks? more less
-
- 14) 0 I have not been feeling guilty.
 1 I occasionally feel a little guilty.
 2 I often feel guilty.
 3 I feel quite guilty most of the time.
 4 I feel extremely guilty most of the time.
- *** If you circled #1, 2, 3 or 4: Have you had guilt feelings for more or less than 2 weeks? more less
-
- 15) 0 I do not feel like a failure.
 1 My opinion of myself is occasionally a little low.
 2 I feel I am inferior to most people.
 3 I feel like a failure.
 4 I feel I am a totally worthless person.
- *** If you circled #1, 2, 3 or 4: Have you been down on yourself for more or less than 2 weeks? more less
-
- 16) 0 I haven't had any thoughts of death or suicide.
 1 I occasionally think life is not worth living.
 2 I frequently think of dying in passive ways (such as going to sleep and not waking up), or that it'd be better off dead.
 3 I have frequent thoughts of killing myself, but I would not carry them out
 4 I would kill myself if I had the chance.
- *** If you circled #1, 2, 3 or 4: Have you been thinking about dying or killing yourself for more or less than 2 weeks? more less

INVENTORY FOR THE DIAGNOSIS OF DEPRESSION

- 17) 0 I am not sleeping less than normal.
 1 I occasionally have slight difficulty sleeping.
 2 I clearly don't sleep as well as usual.
 3 I sleep about half my normal amount of time.
 4 I sleep less than 2 hours per night.

If you circled #1, 2, 3 or 4: Which of these sleep problems have you experienced?
 (circle all which apply)
 1 I have difficulty falling asleep.
 2 My sleep is fitful and restless in the middle of the night.
 3 I wake up earlier than usual and cannot fall back to sleep.
 4 I have you been having sleep problems for more or less than 2 weeks? more less

- 18) 0 I am not sleeping more than normal.
 1 I occasionally sleep more than usual.
 2 I frequently sleep at least 1 hour more than usual.
 3 I frequently sleep at least 2 hours more than usual.
 4 I frequently sleep at least 3 hours more than usual.
 *** If you circled #1, 2, 3 or 4: Have you been sleeping extra for more or less than 2 weeks? more less

- 19) 0 I do not feel anxious, nervous or tense.
 1 I occasionally feel a little anxious.
 2 I often feel anxious.
 3 I feel very anxious most of the time.
 4 I feel terrified and near panic.
 *** If you circled #1, 2, 3 or 4: Have you been feeling anxious, nervous or tense for more or less than 2 weeks? more less

- 20) 0 I do not feel discouraged about the future.
 1 I occasionally feel a little discouraged about the future.
 2 I often feel discouraged about the future.
 3 I feel very discouraged about the future most of the time.
 4 I feel that the future is hopeless and that things will never improve.
 *** If you circled #1, 2, 3 or 4: Have you been feeling discouraged for more or less than 2 weeks? more less

- 21) 0 I do not feel irritated or annoyed.
 1 I occasionally get a little more irritated than usual.
 2 I get irritated or annoyed by things that usually don't bother me.
 3 I feel irritated or annoyed almost all the time.
 4 I feel so depressed that I don't get irritated at all by things that used to bother me.
 *** If you circled #1, 2, 3 or 4: Have you been feeling more irritable than usual for more or less than 2 weeks? more less

- 22) 0 I am not worried about my physical health.
 1 I am occasionally concerned about bodily aches and pains.
 2 I am worried about my physical health.
 3 I am very worried about my physical health.
 4 I am so worried about my physical health that I cannot think about anything else.
 *** If you circled #1, 2, 3 or 4: Have you been worried about your physical

- 11) 0 I can concentrate as well as usual.
 1 My ability to concentrate is slightly worse than usual.
 2 My attention span is not as good as usual and I am having difficulty collecting my thoughts, but this hasn't caused any problems.
 3 My ability to read or hold a conversation is not as good as if usually is.
 4 I cannot read, watch TV, or have a conversation without great difficulty.
 *** If you circled #1, 2, 3 or 4: Have you had problems concentrating for more or less than 2 weeks? more less

- 12) 0 I make decisions as well as I usually do.
 1 Decision making is slightly more difficult than usual.
 2 It is harder and takes longer to make decisions, but I do make them.
 3 I am unable to make some decisions.
 4 I can't make any decisions at all.
 *** If you circled #1, 2, 3 or 4: Have you had problems making decisions for more or less than 2 weeks? more less

- 13) 0 My appetite is not less than normal.
 1 My appetite is slightly worse than usual.
 2 My appetite is clearly not as good as usual, but I still eat.
 3 My appetite is much worse now.
 4 I have no appetite at all, and I have to force myself to eat even a little.
 *** If you circled #1, 2, 3 or 4: Has your appetite been decreased for more or less than 2 weeks? more less

- 14) 0 I haven't lost any weight.
 1 I've lost less than 5 pounds.
 2 I've lost between 5-10 pounds.
 3 I've lost between 11-25 pounds.
 4 I've lost more than 25 pounds.
 If you circled #1, 2, 3 or 4: Have you been dieting and deliberately trying to lose weight? Y or N
 *** If you circled #1, 2, 3 or 4: Have you been losing weight for more or less than 2 weeks? more less

- 15) 0 My appetite is not greater than normal.
 1 My appetite is slightly greater than usual.
 2 My appetite is clearly greater than usual.
 3 My appetite is much greater than usual.
 4 I feel hung'ry all the time.
 *** If you circled #1, 2, 3 or 4: Has your appetite been increased for more or less than 2 weeks? more less

- 16) 0 I haven't gained any weight.
 1 I've gained less than 5 pounds.
 2 I've gained between 5-10 pounds.
 3 I've gained between 11-25 pounds.
 4 I've gained more than 25 pounds.
 *** If you circled #1, 2, 3 or 4: Have you been gaining weight for more or

INVENTORY FOR THE DIAGNOSIS OF DEPRESSION

23) Circle the statement that best describes how your mood varies during the course of the day:

- 0 I clearly feel the most depressed in the morning.
- 1 I clearly feel the most depressed in the afternoon.
- 2 I clearly feel the most depressed in the evening.
- 3 I do not feel consistently more depressed during any particular part of the day.

24) Do you feel any better when something pleasant happens or someone tries to cheer you up?

- 0 Yes, I feel almost normal for a short time.
- 1 I feel a little better, but I still feel somewhat depressed.
- 2 No, I don't feel any better.

25) How does the feeling of depression or sadness compare with the depression you would feel after someone close to you died? (If the 2 types of depression differ ONLY in severity circle #0)

- 0 There is no difference between the two types of depression.
- 1 There is a definite difference between the two.

Name _____

Date _____

BECK INVENTORY

On this questionnaire are groups of statements. Please read each group of statements carefully. Then pick out the one statement in each group which best describes the way you have been feeling the Past Week, Including Today! Circle the number beside the statement you picked. If several statements in the group seem to apply equally well, circle each one.

Be sure to read all the statements in each group before making your choice.

1. 0 I do not feel sad.
1 I feel sad.
2 I am sad all the time and I can't snap out of it.
3 I am so sad or unhappy that I can't stand it.
2. 0 I am not particularly discouraged about the future.
1 I feel discouraged about the future.
2 I feel I have nothing to look forward to.
3 I feel that the future is hopeless and that things cannot improve.
3. 0 I do not feel like a failure.
1 I feel I have failed more than the average person.
2 As I look back on my life, all I can see is a lot of failures.
3 I feel I am a complete failure as a person.
4. 0 I get as much satisfaction out of things as I used to.
1 I don't enjoy things as much as I used to.
2 I don't get real satisfaction out of anything anymore.
3 I am dissatisfied or bored with everything.
5. 0 I don't feel particularly guilty.
1 I feel guilty a good part of the time.
2 I feel quite guilty most of the time.
3 I feel guilty all of the time.
6. 0 I don't feel I am being punished.
1 I feel I may be punished.
2 I expect to be punished.
3 I feel I am being punished.
7. 0 I don't feel disappointed in myself.
1 I am disappointed in myself.
2 I am disgusted with myself.
3 I hate myself.
8. 0 I don't feel I am any worse than anybody else.
1 I am critical of myself for my weaknesses or mistakes.
2 I blame myself all the time for my faults.
3 I blame myself for everything bad that happens.
9. 0 I don't have any thoughts of killing myself.
1 I have thoughts of killing myself, but I would not carry them out.
2 I would like to kill myself.
3 I would kill myself if I had the chance.
10. 0 I don't cry any more than usual.
1 I cry more now than I used to.
2 I cry all the time.
3 I used to be able to cry, but now I can't cry even though I want to.

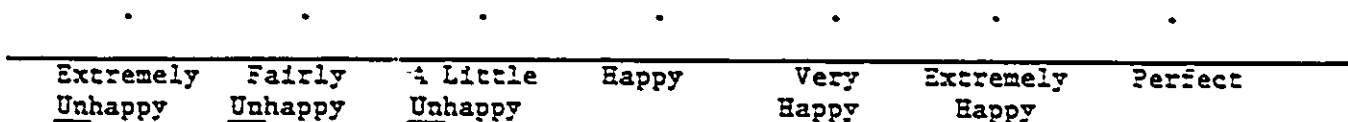
11. 0 I am no more irritated now than I ever am.
1 I get annoyed or irritated more easily than I used to.
2 I feel irritated all the time now.
3 I don't get irritated at all by things that used to irritate me.
12. 0 I have not lost interest in other people.
1 I am less interested in other people than I used to be.
2 I have lost most of my interest in other people.
3 I have lost all of my interest in other people.
13. 0 I make decisions about as well as I ever could.
1 I put off making decisions more than I used to.
2 I have greater difficulty in making decisions than before.
3 I can't make decisions at all any more.
14. 0 I don't feel I look any worse than I used to.
1 I am worried that I am looking old or unattractive.
2 I feel that there are permanent changes in my appearance that make me look unattractive.
3 I believe that I look ugly.
15. 0 I can work about as well as before.
1 It takes an extra effort to get started at doing something.
2 I have to push myself very hard to do anything.
3 I can't do anything at all.
16. 0 I can sleep as well as usual.
1 I don't sleep as well as I used to.
2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.
3 I wake up several hours earlier than I used to and cannot get back to sleep.
17. 0 I don't get more tired than usual.
1 I get tired more easily than I used to.
2 I get tired from doing almost anything.
3 I am too tired to do anything.
18. 0 My appetite is no worse than usual.
1 My appetite is not as good as it used to be.
2 My appetite is much worse now.
3 I have no appetite at all any more.
19. 0 I haven't lost much weight, if any, lately.
1 I have lost more than 5 pounds.
2 I have lost more than 10 pounds.
3 I have lost more than 15 pounds.
- I am purposely trying to lose weight. Yes _____ No _____
20. 0 I am no more worried about my health than usual.
1 I am worried about physical problems such as aches and pains; or upset stomach; or constipation.
2 I am very worried about physical problems and it's hard to think of much else.
3 I am so worried about my physical problems, that I cannot think of anything else.
21. 0 I have noticed any recent change in my interest in sex.
1 I am less interested in sex than I used to be.
2 I am much less interested in sex now.
3 I have lost interest in sex completely.

These are some things about which couples sometimes agree and sometime disagree. Indicate if either item below caused differences of opinions or were problems in your relationship during the past few weeks. (Check yes or no)

29. Yes No
 _____ _____ Being too tired for sex.

30. _____ _____ Not showing love.

31. The dots on the following line represent different degrees of happiness in your relationship. The middle point, "happy," represents the degree of happiness of most relationships. Please circle the dot which best describes the degree of happiness, all things considered, of your relationship.



32. Which of the following statements best describes how you feel about the future of your relationship?

- _____ I want desperately for my relationship to succeed, and would go to almost any length to see that it does.
- _____ I want very much for my relationship to succeed, and will do all I can to see that it does.
- _____ I want very much for my relationship to succeed, and will do my fair share to see that it does.
- _____ It would be nice if my relationship succeeded, but I can't do much more than I am doing now to help it succeed.
- _____ It would be nice if it succeeded, but I refuse to do any more than I am doing now to keep the relationship going.
- _____ My relationship can never succeed, and there is no more that I can do to keep the relationship going.

CENTRE FOR PSYCHOLOGICAL SERVICES

MILLER SOCIAL INTIMACY SCALE

NAME: _____

SEX: _____

Using the items below, please describe your current relationship with your partner/spouse.

	Very Rarely	Some of the Time	Almost Always							
1. When you have leisure time how often do you choose to spend it with him/her alone	1	2	3	4	5	6	7	8	9	10
2. How often do you keep very personal information to yourself and do not share it with him/her?	1	2	3	4	5	6	7	8	9	10
3. How often do you show him/her affection?	1	2	3	4	5	6	7	8	9	10
4. How often do you confide very personal information to him/her?	1	2	3	4	5	6	7	8	9	10
5. How often are you able to understand his/her feelings?	1	2	3	4	5	6	7	8	9	10
6. How often do you feel close to him/her?	1	2	3	4	5	6	7	8	9	10
	Not Much	A Little	A Great Deal							
7. How much do you like to spend time alone with him/her?	1	2	3	4	5	6	7	8	9	10
8. How much do you feel like being encouraging and supportive to him/her when he/she is unhappy?	1	2	3	4	5	6	7	8	9	10
9. How close do you feel to him/her most of the time?	1	2	3	4	5	6	7	8	9	10
10. How important is it to you to listen to his/her very personal disclosures?	1	2	3	4	5	6	7	8	9	10
11. How satisfying is your relationship with him/her?	1	2	3	4	5	6	7	8	9	10
12. How affectionate do you feel towards him/her?	1	2	3	4	5	6	7	8	9	10
13. How important is it to you that he/she understands your feelings?	1	2	3	4	5	6	7	8	9	10
14. How much damage is caused by a typical disagreement in your relationship with him/her?	1	2	3	4	5	6	7	8	9	10
15. How important is it to you that he/she be encouraging and supportive to you when you are unhappy?	1	2	3	4	5	6	7	8	9	10
16. How important is it to you that he/she show you affection?	1	2	3	4	5	6	7	8	9	10
17. How important is your relationship with him/her in your life?	1	2	3	4	5	6	7	8	9	10

Appendix C

Phone Screen Procedures

These procedures are to be implemented for each call to the Center for Psychological Services that expresses an interest in participating in the research project on depression and marital distress.

BASIC INFORMATION

We will be conducting a research study on the treatment of depression when there is distress or conflict in the couple relationship. You will need to satisfy certain criteria to participate in this study. In a moment, I will ask you some questions that will help me determine if you might be suitable for this study. If you do seem to be suitable for this study, you and your partner will need to come to the Center for Psychological Services of the University of Ottawa to complete some psychological testing that will decide if you can in fact participate. If you come in for the testing, you will be given more information about the study and you will have to complete a consent form before we can test you. Because we will be testing people for participation in this study over a two-week period, you would have to wait until the beginning of (month) before treatment begins if you are accepted into the study and you agree to participate. This study will require that either both partners will be involved in treatment or that the female partner receive treatment and that both partners complete research questionnaires.

--> Check that caller understands.

REFERRAL SOURCE

How did you find-out about this study?

Specific source of referral _____

Name and address of referring person or agency _____

Are you currently receiving treatment from this person or agency?

Potential subjects cannot be involved in other treatment for the duration of the study. The caller cannot participate if they are currently receiving drug therapy or marital therapy. If the caller is already participating in drug or marital therapy suggest that they continue their treatment and ask if we can contact the referring person or agency to say that they have not been accepted into the study.

Permission to contact referral source

Yes ___ No ___

I need to ask you some more questions to see if you might be able to participate in this study.

1. How old are you and your partner? M___ F___

Age range : 25 to 45

2. How long have you and your partner been married or living together?

_____ years/months

Minimum : 2 years

3. Are you both English-speaking or fluently bilingual?

Must be Anglophone or bilingual

4. Have you made any immediate plans for divorce or separation?

Must not be planning to separate

5. Is either one of you alcoholic or have problems with drug abuse?

Answer must be no to both

If the caller is currently receiving treatment for drug or alcohol abuse suggest that they continue with that treatment. If the caller is not receiving treatment ask if they wish to be referred to treatment elsewhere.

Treatment for alcohol and/or
drug abuse

Al-Anon 725-3431
Rideauwood Institute 728-1727
Royal Ottawa Hospital 724-6508

6. Do you think that the problems in your relationship have to do with a sexual problem (a sexual dysfunction)?

Not a primary sexual dysfunction

If the caller appears to have a primary sexual dysfunction ask if they wish to be referred for treatment elsewhere.

Sexual Dysfunction Clinic at Civic Hospital 725-4111

7. Has either one of you been diagnosed as having a psychiatric or emotional disorder right now?

Not if other than depression

Who made the diagnosis? _____

If caller is currently receiving treatment they cannot participate. If they are not receiving treatment suggest that another form of treatment is more appropriate or that they return to the the person or agency that has dealt with them.

Referrals : Royal Ottawa Hospital 722-6521
Civic Hospital 725-4581
C.P.S. 564-6875

8. Will either one of you be participating in any form of psychological or psychiatric treatment in the next few months?

Cannot be involved in other treatment for duration of study

9. Has there been any violence between you and your partner?

Couples in which there is marital violence cannot participate in this study. Suggest that another treatment program is more appropriate and ask if they would like to find treatment elsewhere.

Family Service Center 725-3601

10. Has either of you ever made a suicide attempt?

Answer must be no

The female partner must be asked if she is presently thinking of suicide. If there appears to be serious intent refer them to the ROH (722-6521) or to the Civic (725-4581), have them contact their family doctor, and provide assistance if necessary.

DISPOSITION OF CALL

Does not meet criteria

If the caller does not meet the inclusion/exclusion criteria and if there is a specific person or agency that referred them, ask if we can send a letter stating that they have not been accepted to the study.

Verbal consent of caller to contact referral source:

Yes _____ No _____

Has the caller been referred for treatment elsewhere?

No _____ Yes (specify) _____

Meets criteria

If the phone screen is successfully passed on all items, obtain the names of the potential subjects and their phone numbers.

Names: _____

Tel.# (H) _____

(W) _____

Set-up an appointment for testing and log.

Date _____

Time _____

(Be sure they have directions to the Center)

If the caller has been referred by a specific person or agency ask if we can send a letter confirming that they meet our initial criteria for participation in this study.

Verbal consent Yes _____ No _____

Appendix D

Information and Informed Consent

The purpose of this research is to examine the treatment of depression when there is distress in couple relationships. There appears to be a strong association between the presence of depression and difficulties in the couple or marital relationship, and we would like to assess different ways of treating depression to see what effects they have on your relationship with your partner. To participate in this study, the female partner of each couple will have a specific kind of depression of at least moderate severity, and all couples will display distress in their relationship. This study requires the participation of the male partner in completing research questionnaires and/or marital therapy.

If you agree to participate, both you and your partner will undergo psychological testing to determine your suitability for this research. If you satisfy the criteria for participation, you will be randomly assigned to one of two forms of treatment. This means that neither you nor the researchers will know which treatment you will receive until treatment begins and that you are really agreeing to participate in either form of treatment.

Types of Treatment

One form of treatment being offered in this study is drug therapy for depression. This is a common and effective way to deal with the symptoms of depression and this would take place under the supervision of a registered psychiatrist who is affiliated with the University of Ottawa. The female partner of couples assigned to this group will receive drug therapy for a period of 15 weeks and the type and dosage of drug will be determined by her needs. The female partner will have regular monthly contacts with the psychiatrist and the male partner will be required to complete research questionnaires. The cost of medication will be reimbursed to you and your contacts with the psychiatrist will be covered by OHIP. In addition, if you feel you would like marital therapy once this study is completed, marital therapy appropriate to your needs will be available to you free of charge at the Center for Psychological Services of the University of Ottawa. Because this study includes follow-up assessments after the end of treatment, you would have to wait six months before beginning therapy.

The other form of treatment being offered is a type of marital therapy that has been adapted for use with couples in which there is a depressed partner. This treatment will last for 15 weeks, and therapy sessions will occur on a weekly basis. Each session will last about one and one quarter hours; with the exception of individual sessions scheduled near the beginning of treatment, both you and your partner will be required to attend the sessions together each week. Marital therapy will be conducted by doctoral-level interns in clinical psychology under the supervision of Dr. S. Johnson, a registered psychologist at the Center for Psychological Services. All sessions of marital therapy will be taped for the purposes of supervision. Marital therapy will be offered free of charge at the Centre.

Psychological Testing

Both partners of couples participating in this study will be required to complete research questionnaires. This will include the initial testing to determine your suitability for this study as well as testing during the seventh week of treatment, at the end of treatment, and at three and six months after treatment is complete. Psychological testing will include questionnaires that examine depression and the couple relationship. Testing will take place at the Centre for Psychological Services and will require about one hour for each testing period. There is no charge for the testing. If you are not accepted to the study, you will be offered a feedback session on the initial testing free of charge.

Confidentiality

This study follows the guidelines established by the Ontario Board of Examiners in Psychology for the ethical conduct of research and it has received full approval by the University of Ottawa Human Research Ethics Committee. Results of testing and tapes of marital therapy sessions will be kept in strictest confidence. Your name will only be known to those who are involved in your care or in clinical supervision of your treatment. A research assistant will be involved in psychological testing with you and they will respect the confidentiality of all information. All data from this study will be pooled so that individuals or couples cannot be identified, and if data from this study is published you will not be identified in any way.

The Treatment of Depression

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I, _____, understand that I am being asked to participate in a study to assess the treatment of depression when there is distress in the couple relationship and I agree to participate in one of the forms of treatment being offered. I give permission for the collection of data for the study and for the creation of a clinical file that will be used to monitor my progress in treatment. I understand that all information gathered about my treatment will be held in strictest confidence. My participation in this research is voluntary and I may withdraw from the study at any time without compromising my ability to receive treatment if needed. I can contact either Dr. S. Johnson or Andre Dessaulles at the Centre for Psychological Services of the University of Ottawa (564-6875) to answer any questions or concerns that I may have.

I have received a copy of this consent form and I have read and understood it. I hereby agree to participate in this study.

Signature _____ Date _____

Witness' Signature _____

Confirmation of Consent at Beginning of Treatment

Signature _____

Witness' Signature _____

Appendix E
Demographic Questionnaire

Name _____ Couple ID _____

Sex _____

Age _____

1. How many years have you lived together as a couple? _____

2. How many children do you have? _____

3. Please check the category in which your gross family income falls:

Under 15,000	_____	35,000-45,000	_____
15,000-25,000	_____	45,000-55,000	_____
25,000-35,000	_____	Over 55,000	_____

4. What is your current occupation? _____
If unemployed, please state reason:

5. Have you had a previous marriage? Yes _____ No _____

6. Please check the category that best describes your level of education:

Grade 10 or less	_____
Grade 12 or less	_____
2 years of post-secondary	_____
Completed community college program	_____
Completed university degree	_____
Completed graduate program	_____
Completed Ph.D. or equivalent	_____