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**The Role of Perceptions of Early Experiences and Current Marital Context
in Men's Depressive Symptomatology**

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**Dissertation Submitted to the School of Graduate Studies and Research,
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Running Head: Depression in Men

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Abstract

Recent years have shown a marked growth in the literature examining the interpersonal context of depression. One area about which relatively little is known, however, concerns the relational correlates of depression in men. The present study examined the relationship between men's recollections of childhood experiences, their perceptions of their current marital relationship, and self-reported depressive symptomatology. A community sample of men completed the following self-report measures: 1) the Beck Depression Inventory; 2) the Parental Acceptance-Rejection Questionnaire; 3) the Conflict-Tactics Scale (modified version); 4) the Revised Adult Attachment Scale; 5) the Level of Expressed Emotion scale (tolerance subscale). Analyses showed that self-reported childhood parental rejection, childhood physical abuse, insecure adult attachment and spousal intolerance were all positively correlated with self-reported depressive symptoms at the zero-order level. There was no evidence of moderating relationships between childhood and adulthood variables in predicting depressive symptoms. Path analysis supported the mediating hypothesis that reported maternal rejection in childhood contributes to reported attachment difficulties in adulthood, which are subsequently related to reported depression levels. In contrast, reported paternal rejection was found to be directly associated with reported depressive symptoms in adulthood. The findings underscore the importance of the interpersonal context in understanding men's emotional functioning.

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**The Role of Perceptions of Early Experiences and Current Marital Context
in Men's Depressive Symptomatology**

Depression, the so-called "common cold of mental illness", annually accounts for 75 percent of all psychiatric hospitalizations and 100 million diagnoses worldwide (Weissman, Myers, & Harding, 1978). During the course of a lifetime, approximately 25 percent of women and 8-12% of men will experience some form of clinical depression (Weissman et al., 1978). The disorder has tremendous repercussions (e.g., economic cost, suicide, human suffering, family and marital disruption) for affected individuals, their loved ones, and society (Gotlib & Hooley, 1988; Lehmann, 1971; Rupp, 1995). Although both genders experience depression, researchers have repeatedly found that the disorder is twice as common among women than it is among men (Weissman & Klerman, 1977, 1987; Nolen-Hoeksema, 1990; American Psychiatric Association, 1994; Culbertson, 1997). Such findings have given rise to an abundance of research attempting to identify factors which may account for this gender difference, and typically for women's increased vulnerability to depression.

Perhaps because the majority of depressed individuals are women, researchers have also tended to study depression in women to a far greater extent than depression in men. Many studies of depression use female-only samples. Consequently, the research literature has often tended to neglect the subject of men's depression. Although numerous reviews, empirical studies, and books dealing specifically with the theme of "women's depression" exist (cf., American Psychological Association Task Force on Women and Depression, 1990; Cochrane, 1993; Formanek & Gurian, 1987; Nolen-Hoeksema, 1990; Jack, 1991; Weissman & Paykel, 1974), there is a marked paucity of literature dealing specifically with men's depression (Real, 1997;

Cochran & Rabinowitz, 2000). Recent years, however, have witnessed mounting evidence that men are also affected, albeit to a lesser extent, by many issues traditionally associated with women, such as childhood sexual abuse, domestic violence and even rape (Ben-David & Silfen, 1993; Dhaliwal, Gauzas, Antonowicz, & Ross, 1996; Genuis, Thomlinson, & Bagley, 1991; Groth & Burgess, 1980; Pearson, 1997). This perhaps reflects a gradually growing recognition that it is also possible for men to be cast into “vulnerable” positions, including depression (Cochran & Rabinowitz, 2000; Pittman, 1993; Real, 1997).

Thus, there is an increasing awareness that although women may be twice as likely to become depressed, depression does afflict large numbers of men. Moreover, some authors have argued that traditional prevalence estimates have tended to underestimate the scope of the problem, due to what has been termed “masked” or “covert” depression in men (Barbee, 1996; Cochran & Rabinowitz, 2000; Harper & Kelly, 1985; Maiuro, Cahn, Vitaliano, Wagner, & Zegree, 1988; Real, 1997; Warren, 1983). In this view, internalized cultural conditioning results in the suppression of certain emotional states (e.g., sadness) by men, such that many problematic behaviors or disorders which are more prevalent in males (e.g., alcoholism, drug abuse, aggression) may actually reflect different external manifestations of underlying depression. Cochran & Rabinowitz (2000) cited a number of studies which suggest that although men suffer from overt depression in fewer numbers than women, they outnumber them in other disorders (e.g., alcohol abuse), which they argue have significant comorbidity with depression. For instance, the Epidemiological Catchment Area study (Robins & Reiger, 1991) interviewed a total of 19,182 men and women from five population centres in the United States. The study found similar lifetime prevalence rates (36% for men, and 30% for women) for both genders for all

psychiatric disorders. Consistent with previous research, lifetime prevalence rates for a general category of affective disorders, including but not limited to major depression and dysthymia, were 5.2% for men, and 10.2% for women. In contrast, men outnumbered women in alcohol abuse/dependence (23.8% versus 4.6%), antisocial personality disorder (4.5% versus 0.8%) and drug abuse/dependence (7.7% versus 4.8%). This pattern of results was replicated by the National Comorbidity Survey (Kessler et al., 1994), which interviewed 8,098 persons using DSM-III-R criteria for clinical disorders.

Cochran and Rabinowitz (2000) have suggested that men's over-representation in these other diagnostic categories may reflect ways in which men's internalized gender roles lead them to cope with or channel suppressed depression. For example, men's higher rates of alcohol-related disorders may imply that they tend to self-medicate their depressive moods. As further evidence of the role of cultural and social factors as mediating variables in shaping prevalence rates for depression, these authors cite a number of studies of specific cultural groups which have found few if any gender differences in these rates (Cochran & Rabinowitz, 2000). For example, a study of an Amish community in Pennsylvania (Egeland & Hostetter, 1983) found that 49% of men and 51% of women were identified with unipolar depression over a period of four years. One explanation offered for the absence of a gender difference in this study is that substance abuse and antisocial behaviours are relatively uncommon among the Amish, and therefore did not conceal depression among the males (Cochran & Rabinowitz, 2000). Thus, some researchers have raised the question as to how many depressed men may be exhibiting their depression through other disorders or syndromes, such that men are under-represented in traditional prevalence estimates. Although there is some preliminary evidence to support this basic argument, it is a complex issue

that remains empirically and theoretically controversial (Cochran & Rabinowitz, 2000; Harper & Kelly, 1985; Mauro et al., 1988; Real, 1991). Difficulties in operationalizing the construct of masked depression, as well as its exclusion from formal diagnostic and research categories, have limited the availability of empirical support for it (Cochran & Rabinowitz, 2000). Nonetheless, this issue should be kept in mind when evaluating gender differences in depression.

Theories and studies of gender differences in depression can aid our understanding of men's depression to a certain extent. It should be noted, however, that much of this literature has tended to focus on why men do *not* become depressed. It has been argued, for example, that men are less likely to become depressed than women because of differences in their coping styles, gender-role socialization, socio-economic status, levels of victimization, hormones, reproduction-related events, and a plethora of other factors (e.g., see Weissman & Paykel, 1974; Formanek & Gurian, 1987; Jack, 1991; Nolen-Hoeksema, 1990). This body of literature often tells us little, however, about why *men* actually become depressed. Rather, it typically tells us what factors lead women to be depressed more, and what factors in men tend to protect them from depression.

Thus, relatively little is known about depression in men, and the scattering of research in this area probably reflects the lack of theories of male depression (Cochran & Rabinowitz, 2000; Real, 1997). Researchers have investigated such diverse variables as unemployment and job loss (Kupers, 1996; Melville, Hope, & Bennison, 1985), sex-roles and sex-role conflict (Barbee, 1996; Good, Robertson, Fitzgerald, & Stevens, 1996), HIV/AIDS infection (Judd & Mijch, 1994), childhood sexual abuse (Dhaliwal et al., 1996), testosterone levels (Cochran & Rabinowitz, 2000) and even hair loss (Wells, Willmoth, & Russell, 1995) in relation to men's depression and depressive symptomatology.

The present study explored the relationships among two sets of interpersonal variables and men's depressive symptomatology. The first set of interpersonal variables examined the quality of men's current relationships with their spouses; the second, the quality of their relationships with their parents in childhood. Based on the research literature, both sets of variables were expected to predict adult depressive symptoms. The present study not only examined this expectation, but the possible interplay among these variables as well.

Before reviewing the variables of interest and describing the hypotheses of the study, the distinction between clinical depression and depressive symptomatology should be elucidated. A large portion of depression research has utilized, as its dependent measure, self-report measures of depressive symptomatology (Gotlib & Whiffen, 1991). However, some authors have distinguished between depressive symptomatology, as measured by such self-report scales (e.g., the Beck Depression Inventory; Beck, Ward, Mendelson, Mock & Erbaugh, 1961), and clinical depression, as determined by substantially more lengthy diagnostic interviews (Coyne, 1994; Coyne & Whiffen, 1995; Gotlib & Whiffen, 1991). Elevated scores on self-report measures, for example, can sometimes reflect distress that is less severe and/or enduring than diagnosable depression (Coyne, 1994). Scoring above cut-off points on such measures does not always necessitate that all essential criteria for a diagnosis of major depression are met (Myers & Weissman, 1980). Thus, the literature suggests that generalizations about diagnosable depression that can be made on the basis of self-report data may be limited (Coyne & Whiffen, 1995; Gotlib & Whiffen, 1991). Conclusions about clinical depression from studies using self-report measures should therefore be drawn and interpreted with the above cautions in mind (Gotlib & Whiffen, 1991).

The Role of the Interpersonal Context in Adult Depression

Depression is a complex disorder which may include disruptions in numerous spheres of functioning, from physical disturbances (e.g., in appetite or sleep) to cognition and interpersonal functioning. Not surprisingly, researchers have approached the study of depressive disorders from a variety of perspectives. Biological approaches, with origins in Hippocrates' body humor theory of melancholy, have focused on the contribution of genetic, neurochemical, neurophysiological, endocrine, dietary and circadian mechanisms to depression (Thase, Frank, & Kupfer, 1985). As more effective pharmacological treatments for depression have been developed in recent years, interest in these biological substrates has increased. This body of research has identified a number of biological correlates of depression. For example, although evidence for a genetic component has been more consistently found for bipolar disorder than for unipolar depression (Sevy, Mendlewicz & Mendelbaum, 1995), twin and adoption studies have supported the notion of heritability playing a role in the latter (Wesner & Winokur, 1990). Similarly, there is evidence that depression is associated with disruptions in levels of a number of neurotransmitters (e.g., serotonin) in various parts of the brain (Thase et al., 1985).

Psychological models of depression have traditionally emphasized internal processes which contribute to the development or maintenance of depression. Early psychoanalytic theorizing, for example, distinguished between normal grief reactions and abnormal depressive reactions to loss, or melancholia. Freud (1917) suggested that pathological grief occurred when unconscious anger and hostility toward the lost object was internalized and directed toward the self, resulting in self-loathing, self-blame, and depression.

Cognitive approaches to depression, in particular that put forward by Beck and his colleagues (Beck, Rush, Shaw & Emery, 1979), have played a pivotal role in advancing our understanding of the disorder and in the development of effective psychotherapeutic strategies. Essentially, cognitive theory postulates that depression results primarily from a negative “cognitive triad”, a tendency to view the self, the future, and the world in an unrealistically negative manner (Beck et al., 1979). Depressed individuals believe they are worthless, expect rejection and failure, and are said to interpret information through negative schemas which tend to be negatively toned and distort information. Research in this area has confirmed a number of the central tenets of Beck’s original theory, and refuted or clarified others. For example, although depressed individuals have consistently been found to be pessimistic, they are not always cognitively distorted, and appear to have more accurate perceptions than nondepressed individuals at times (Layne, 1983). Additionally, although maladaptive or dysfunctional beliefs are theorized to contribute to the development and maintenance of depressed mood, there has been some debate in the literature as to whether such cognitions are symptoms rather than a cause of depression (Lewinson, Steinmetz, Larsen, & Franklin, 1981).

Other psychological approaches share an emphasis on the manner in which individuals respond to or make sense of their life circumstances. Nolen-Hoeksema’s response-style theory of depression (Nolen-Hoeksema, 1990), for example, has focused on the ways in which individuals respond to their own dysphoric mood states. Although Seligman’s (1972) original “learned helplessness” model of depression was based on behavioral observations of animals, later reformulations of the model have focused on cognitive/attributional processes (Peterson & Seligman, 1985). Seligman’s theory proposes that individuals’ causal interpretations of the

meaning of uncontrollable events have an impact on mood, and lead to depression. Individuals who habitually make (helpless) attributions about their failures that are internal (personal), stable, and global will be more likely to become depressed if they encounter adverse life experiences.

Later versions of the theory incorporated the concept of hopelessness, that is, the expectation that desirable outcomes will not occur, and that the individual has no recourse to change this situation.

In contrast to biological or psychological models that have conceptualized depression chiefly as an intrapersonal/intrapsychic phenomenon, a number of theorists have more recently begun to consider the larger, interpersonal context of depression (Gotlib & Hooley, 1988; Beach, Sandeen, & O'Leary, 1990; Gotlib & Whiffen, 1991; Coyne, Schwoeri, & Downey, 1993). The interpersonal approach places emphasis on studying the ways in which interpersonal factors interact with intrapersonal ones to create depression, and on how depression in turn may affect interpersonal relationships. Thus, this approach highlights the primacy of interpersonal relations in human development, the deleterious impact of the disruption of important bonds with others, and the links between these factors and the development of depression. Within this view, one relatively broad interpersonal factor that has received considerable attention in recent years is the couple relationship, in particular with regard to the link between depression and marital distress.

Depression and Marital Distress

Numerous studies have found that clinical depression and depressive symptoms are linked to marital distress (see Gotlib & Hooley, 1988; Beach et al., 1990; Coyne, Schwoeri, & Downey, 1993). For example, the marital interactions of depressed individuals are characterized by higher levels of disruption and conflict, communication problems, verbal/nonverbal incongruities, criticism, interruptions, and other forms of negative expressivity. These interactions are more

dysfunctional than depressed individuals' interactions with strangers and friends, and the interactions of nondepressed, surgical control couples (Freden, 1982; Hinchcliffe, Hooper, & Roberts, 1978; Gotlib & Whiffen, 1989, 1991). However, the direction of causality between marital distress and depression is still unclear. There is both evidence to suggest that marital distress can play an important role in the etiology of depression, and that marital problems can result from one or both spouses being depressed (Gotlib & Hooley, 1988).

Some characteristics of depressed individuals may tax the resources of their partners, contributing to or causing marital conflict or other problems (Coyne, Kessler, Tal, Turnbull, Wortman, & Greden, 1987). For instance, a number of studies have found that depression often co-occurs with an aversive interpersonal style (Gotlib & Hooley, 1988). Depressed individuals' conversational manner, for instance, is often self-centered, negatively toned, critical of self and others and communicates negative affect and views of the world. This style often elicits conflict, rejection and dislike from others (Gotlib & Hooley, 1988), particularly in the case of dysphoric men (Joiner, Alfano, & Metalsky, 1992). Studies directly examining the marital relationship have found that, following interactions with their spouses, the partners of depressed individuals report feeling more hostile than partners in couples where neither partner is depressed (Gotlib & Hooley, 1988; Kahn, Coyne, & Margolin, 1985). Thus, marriages with a depressed partner experience more conflict, tension, and dissatisfaction than non-depressed marriages.

It is also possible that marital distress is depressogenic. A number of studies, mostly of depressed women, have found that marital difficulties are among the most common presenting problems associated with symptom onset (Paykel, Myers, Dienelt, Klerman, Lindenthal, & Pepper, 1969; Rounsaville, Weissman, Prusoff, & Herceg-Baron, 1979; Weissman & Paykel,

1974). Relationship variables associated with marital distress, such as criticism and high expressed emotion (EE), have also been found to predict relapse rates in depression (Coiro & Gottesman, 1996).

Thus, there is both evidence that marital distress is depressogenic, and that depression results in marital distress. It is also possible that a reciprocal relationship exists between depression and marital distress, such that a vicious cycle can develop in certain marriages. That is, depression and marital distress may perpetuate and aggravate each other; depression may therefore be both a result and a cause of marital difficulties (Briscoe & Smith, 1975; Gotlib & Hooley, 1988). Moreover, other variables, such as characterological disorders in one or both partners, or shared stressful life events, may render the relationship between these two variables even more complex (Gotlib & Hooley, 1988).

The research literature also suggests that the nature of the relationship between marital distress and depression may depend, to a certain extent, on the spouse's gender. For women, marital problems seem more clearly to precede and play a causal role in depression. As mentioned earlier, depressed women tend to cite marital difficulties as one of their most significant concerns, and their marital distress tends to continue after their symptoms have abated (Hinchcliffe et al., 1978; Paykel et al., 1969; Rounsaville et al., 1979; Weissman & Paykel, 1974). It has been argued that women's gender roles, which tend to emphasize dependency, self-sacrifice, and the idea of relationships as central to identity, moral goodness and self-worth, render them more vulnerable to the effects of dysfunctional marital relationships (Jack, 1991).

For men, the relationship between marriage and depression is less clear. The findings of some studies have implied that for men, depression may tend to be a cause of, rather than a result

of, general marital distress. Whiffen and Gotlib (1989), for example, found that when husbands in their sample were maritally distressed, both partners tended to show depressive symptoms. However, the husbands of women who reported marital distress did not tend to differ from husbands of nondistressed women (Whiffen & Gotlib, 1989). Additionally, a causal path analysis by Ulrich-Jakubowski, Russell, and O'Hara (1988) concluded that depressive symptoms in the older men they studied were a causal factor in marital distress. However, the hypothesis that marital problems would contribute to depressive symptoms for these older men was not directly supported. Hinchcliffe et al. (1978) examined the interactions of 20 couples in which one partner was clinically depressed. In couples where the depressed participant was female, marital tension tended to continue following symptom remission. For males, marital interactions became less negative after recovery. One interpretation of this study is that the negative expressiveness/interactions and marital dissatisfaction of the men may have been consequences of their depressions rather than their cause.

Despite these findings, it may be argued that research on the causal relationship between depression and marriage for men remains inconclusive. A number of studies have failed to find differences between men and women on many of the aforementioned variables, suggesting that marital stressors may have equivalent or at least similar effects for both genders (Beach & O'Leary, 1993; Kahn et al., 1985; Newmann, 1986; Weissman, 1987). Beach and O'Leary (1993), for example, found that marital variables were equally predictive of depressive symptomatology for husbands and wives in their longitudinal study. In a similar vein, Coleman and Miller (1975) found that both men and women's depression was related to their own, and their partners', marital maladjustment. Interestingly, the correlation between severity of

depression and the quality of the marital relationship was significantly higher for men than for women (Coleman & Miller, 1975). Women and men may also be affected differently by different types of marital stressors. Briscoe and Smith (1975) found that whereas women's depression was often precipitated by relationship events like increased conflict or by adultery by the husband, men were more likely to become depressed around the time of actual marital separation.

Moreover, it is possible that marital problems may only bring about depression in men who have a vulnerability for specific types of interpersonal stressors. That is, men may become depressed only when a combination of current interpersonal and (possibly pre-existing) intrapsychic factors are present. Consistent with this view, Whiffen and Aube (1999) found that men who scored high on a measure of neediness were at risk for depression only when they were married to women who were non-disclosing and low on intimacy. Whiffen and Aube (1999) suggested that, because men tend to have few intimate extramarital contacts, the quality of their marital relationships may be particularly important in determining whether they become depressed or not. This is especially true when the man in question is highly needy in relationships, as his need for intimacy is likely to go unmet if the quality of the marriage is poor. It is also possible that men's generally lower likelihood of becoming depressed might be at least partially explained by women's greater tendencies toward self-disclosure and intimacy-seeking in relationships. Thus, compared to women, men may be generally more protected from depression simply by being more likely to have relationship-focused partners who meet their intimacy needs.

In light of the above findings, the conclusion that the quality of the marital relationship has less of an effect on men's depression may therefore be unwarranted. Although there is a good deal of evidence suggesting that marital distress can be depressogenic for women, the relationship

between the two variables for men remains unclear. As suggested by Whiffen and Aube's (1999) findings, one possible explanation for the inconsistent findings in this area may be that marital distress may only be depressogenic for men with a pre-existing vulnerability. Thus, men may vary in their vulnerability to marital problems, such that different men are affected differently depending on their makeup and/or background. Another possibility is that the global ratings of marital distress used in many studies do not tap into specific depressogenic aspects of marital distress for men. Women's greater global investment in relationships (Jack, 1991) may render them more vulnerable to depression when any of a number of aspects (e.g., levels of intimacy, conflict, spousal criticism) of their marriage becomes dysfunctional. Perhaps for men, only more specific marital variables (e.g., spousal criticism or attachment dimensions, described below) are linked to depression. Further research and theoretical formulations are clearly needed in order to advance our understanding of these issues.

Adult Attachment

One approach that holds great potential for facilitating this understanding is attachment theory (Bowlby, 1973; 1980; 1982), particularly in its application to adult attachment. A basic tenet of attachment theory is that humans have an adaptive, fundamental need for maintaining relatedness to others. Thus, adult attachment has been defined as:

“...the stable tendency of an individual to make substantial efforts to seek and maintain proximity and contact with one or a few specific individuals who provide the subjective potential for... psychological safety and security. This stable tendency is regulated by internal working models of attachment, which are cognitive-affective-motivational schemata built from the individual's experience of his or her interpersonal world” (Berman and Sperling, 1995, p.8)

It should be noted that these internal “working models” comprise the individual's general beliefs about their own self-worth, and their expectations about others' responsiveness and availability.

Attachment theory was initially applied to children and in the study of mother-child interactions. The quality of relationships with caregivers in childhood was said to be a primary agent in shaping the individual's style of attachment, and the corresponding internal working models of self and other. Ainsworth, Blehar, Waters and Wall (1978), using their "strange situation" paradigm, originally identified three basic attachment styles in children: secure, (anxious) avoidant and (anxious) ambivalent. Secure attachment is believed to result in a sense of positive self-worth, and expectations that the attachment figure will be responsive and emotionally available. Securely attached children in the "strange situation" happily explored their environments when their mother was present, and sought contact with the mother when she returned. Consistent with the tenets of attachment theory, the mothers of securely attached children were found to show sensitive, appropriately responsive caretaking behaviours (Ainsworth et al., 1978). Ambivalently attached children vacillated between rejecting and clinging to their mothers, who tended to be inconsistently responsive. Avoidant children seemed disinterested in their mothers, who often rejected them (Ainsworth et al., 1978).

More recently, attachment theory has been employed in the study of romantic adult relationships (Bartholomew, 1990; Bartholomew & Horowitz, 1991; Berman & Sperling, 1995; Hazan & Shaver, 1987; Johnson, 1996). Bartholomew (1990) confirmed the existence of adult attachment styles similar to those originally described by Ainsworth et al. (1976) in children, with some differences. Among adults, the attachment styles have been termed secure, preoccupied, and avoidant. Secure attachment in adults is characterized by the valuing of intimate relationships, and the ability to maintain them without losing personal autonomy (Bartholomew and Horowitz, 1991). By contrast, preoccupied attachment is characterized by an over-

involvement in close relationships, over-dependence on others' acceptance, and excessive emotionality around intimate relationships (Bartholomew and Horowitz, 1991). Two subtypes of avoidant attachment have been identified: fearful-avoidant and dismissing-avoidant (Bartholomew, 1990; Bartholomew and Horowitz, 1991). As the name implies, dismissing individuals often dismiss or defensively minimize the importance of close relationships, and emphasize the importance of self-sufficiency and independence. They tend to be detached, impassive, and often cold and hostile in their intimate relations. Fearful individuals tend to avoid intimate contact in relationships because they fear rejection or distrust others. They are often emotionally withdrawn despite feeling a strong need for closeness to the attachment figure (Bartholomew, 1990; Bartholomew & Horowitz, 1991).

Attachment theory posits various explicit links between attachment styles and many forms of adult emotional distress, including depression (Bowlby, 1980; Cummings & Cicchetti, 1990). First, the ability to establish a secure attachment is thought to be a vital part of healthy functioning, and may be instrumental in preventing the development of depression. Secure attachments and positive internal working models of self and other can provide a source of safety, meaning, and self-esteem that combats the effects of stressful events, both within and outside of the relationship. Consistent with this view, there is evidence that having a stable, supportive relationship with a spouse is negatively correlated with depression, and may be an important protective factor from depressing and/or stressful life events (Coyne, Schwoeri, & Downey, 1993). This is consistent with general findings from the social support literature that social support is an important counter-agent for depression (Cobb, 1995; Holahan & Moos, 1991; Lara, Leader, & Klein, 1997; Robinson & Garber, 1995). Lara et al. (1997), for example, found that

social support was associated with lower severity of, and faster recovery from, clinical depression. Similarly, McLeod, Kessler, and Landis (1992) found that spouses' positive responses, support, and compassion predicted more rapid recovery of their partner from depression.

In contrast, it has been argued that insecure attachment may play a key role in the development of depression (Whiffen, Kallos-Lilly, & MacDonald, in press). Depressed mood, for example, may occur when negative working models of self and others are triggered by interpersonal difficulties (Cummings & Cicchetti, 1990). Insecurely attached individuals may also come to expect rejection and erratic responsiveness from their attachment figure(s); such expectations can result in a self-fulfilling prophecy, by contributing in various ways to actual rejection from the attachment figure(s) (Whiffen et al., in press). Additionally, even ambiguous relationship cues or events may be negatively perceived by someone who is insecurely attached. Negative working models can also affect how individuals experience and interpret stressful interactions or relationship events. There may be a belief, for example, that an argument signifies the end of the relationship, or that it is impossible to remedy relationship problems once they occur. The insecurely attached individual may simultaneously yearn for closeness and a secure relationship, but anticipate that they will be rejected (Whiffen et al., in press). At the same time, fearful and preoccupied individuals may rely heavily on interpersonal relationships and closeness to validate them and give them a sense of worth (Griffin & Bartholomew, 1994a, 1994b). As a result of these features, the insecurely attached person may be particularly vulnerable to perceived or actual rejection, putting them at greater risk for low self-esteem, relational distress and depression (Roberts, Gotlib, & Kassel, 1996).

Although attachment theory and research suggest that depressogenic attachment styles are often formed in childhood (Bowlby, 1980; Carnelley, Pietromonaco, & Jaffe, 1994; Cole-Detke & Kobak, 1996; Gerlsma, Emmelkamp, & Arrindell, 1990; Pettem, West, Mahoney, & Keller, 1993; Priel & Shamai, 1995), the continuity of attachment styles remains a subject of debate (Parker, Barrett, & Hickie, 1992; Whiffen et al., 1997). While highly problematic relationships with childhood caregivers do seem to result in disturbed attachment patterns in adulthood, there is not strong evidence that constancy of attachment is inevitable for most cases (Parker et al., 1992). Bowlby (1973) himself stated that relationships with others can transform attachment styles across the lifespan, for good or ill. Thus, adult attachment may be more influenced by the quality of the current primary attachment relationship, which is typically assumed to be with the spouse. In keeping with this, the quality of *current* attachment may be a more important variable in adult depression (Whiffen & Johnson, 1999). Specifically, depression may be related to the individual's current attachment needs being unmet (Whiffen & Johnson, 1999).

Whiffen et al. (1997) recently completed the first study directly examining the depressed adult's attachment with their current, primary attachment figure. They compared self-reported ratings of attachment in a sample of 52 couples with a clinically depressed wife, to those of 129 couples drawn from the community. Compared to the community women, the depressed women were significantly more likely to be fearfully attached, and significantly less likely to be securely attached. Depressive symptomatology was associated with higher levels of fearful attachment in the depressed women, and with both fearful and anxious attachment in the comparison women. Partners' own attachment ratings did not appear to be associated with the individual's concurrent depressive symptoms (Whiffen et al., 1997). However, the husbands' own attachment ratings

were predictive of their wives' depressive symptoms six months later, although wives' own attachment ratings were not. Specifically, women whose husbands reported less secure and more dismissive attachment at Time 1 tended to be more depressed at Time 2. Of particular relevance to the present study, Whiffen et al. (1997) found that, for men in both groups, higher levels of depressive symptomatology were also associated with fearful attachment.

Criticism and Expressed Emotion

Another variable of interest to many depression researchers is criticism, both in terms of self-criticism by the depressed individual and/or criticism of them by significant others. There is much evidence to suggest a strong link between self-criticism and depression, although interpretations of these data vary (Blatt, 1974; Beck, Rush, Shaw, & Emery, 1979; Coyne & Whiffen, 1995; Zuroff, Quinlan, & Blatt, 1990). Blatt (1974), for example, argued that highly self-critical and/or dependent individuals are vulnerable to depression. Such self-criticism is thought to reflect negative interactions with parents during childhood which give rise to dysfunctional internal working models of the self and others. Once formed, the working model associated with self-criticism is said to operate relatively independently, more or less unaffected by the interpersonal context (Blatt, 1974). Thus, a self-critical individual will tend to feel inadequate regardless of current levels of support or criticism. Thus, Blatt (1974) sees self-criticism as a largely intrapsychic personality predisposition or trait, one that can interact with congruent life stressors (i.e., failure to achieve an internalized goal) to create depression.

Coyne and Whiffen (1995) reviewed this and similar theories from an interpersonal perspective. In this approach, personality is seen as socially or interpersonally constructed rather than as a set trait, and interactions with others, in particular significant others, are seen as

constantly shaping personality. Thus, self-criticism may at least partly stem from a distressing, critical interpersonal context or important relationship, such that the quality of current relationships could also heighten or attenuate an individual's predisposition towards self-criticism. In a distressed marriage, a person may be continually berated, disapproved of, and reminded of his or her alleged faults and inadequacies by their partner. This can erode the individual's self-esteem and sense of safety in the relationship, heighten self-criticism, and increase the likelihood of depression (Whiffen & Aube, 1999).

Criticism or support by one's partner may also affect the outcome of distress or depression stemming primarily from other sources (e.g., life stressors, bereavement, trauma). Beach et al. (1990) for example, have argued that such marital variables are of vital importance for understanding the development of depression in vulnerable individuals. In the case of men, spousal support or criticism may play a role in determining whether certain life events which might be deemed especially stressful for them (e.g., career failure) will lead to depression. Although men have been traditionally socialized to emphasize their roles as successful "achievers" and "providers" (Pittman, 1993; Real, 1997), such an achievement orientation has not been reliably associated with depression (Hammen, Marks, Mayo, & de Mayo, 1985; Segal, Shaw & Vella, 1989). This is possibly because studies have neglected to take into account interpersonal factors such as attachment, intimacy and spousal support or criticism which may affect this relationship.

A useful construct related to spousal criticism that may shed further light on these issues is expressed emotion, or EE (Brown, 1985). EE traditionally refers to the extent to which family members (i.e., parents, spouses) are critical, hostile, and emotionally over-involved in relation to

the psychiatric patient (Brown, 1985; Coiro & Gottesman, 1996; Hooley, 1985). High-EE family members show high degrees of criticism, over-involvement, and negative attitudes toward the patient; low-EE relatives exhibit low degrees of these variables. The EE construct was initially applied to the study of schizophrenia, and has repeatedly been found to be an especially powerful predictor of relapse or exacerbation of schizophrenic symptoms (Brown, 1985). Schizophrenic patients living in high-EE home environments relapse at significantly higher rates than those in low-EE home environments.

Somewhat later, EE research was extended to include a number of other disorders, including depression. In one of the first studies of EE and depression, Vaughn and Leff (1976a, 1976b) found that depressed inpatients who returned to live in high-EE home environments after symptom remission were significantly more likely to relapse at a nine-month follow-up than inpatients in low-EE home environments. Vaughn and Leff's (1976b) findings have since been replicated with a variety of patient populations. In a review of seven studies on affective disorders and EE, Coiro and Gottesman (1996), found that depressed patients with a high-EE relative (typically the spouse) were seven to 29 times more likely to relapse than those with low-EE relatives. On average, high-EE patients were 13.2 times more likely to relapse than low-EE patients. The predictive validity of the EE construct in depression holds for a variety of patient populations, ranging from adults with major depression (Hooley, Orley, & Teasdale, 1986; Vaughn & Leff, 1976b) to children with major affective disorders and dysthymia (Asarnow, Goldstein, Thompson, & Guthrie, 1993).

There is further evidence to suggest that EE is a particularly relevant construct for understanding depression. A number of studies have found that depressed patients relapse at

significantly lower levels of EE than schizophrenic patients (Hooley et al., 1986; Vaughn & Leff, 1976b). One interpretation of these findings is that, as a group, depressed individuals are more vulnerable to criticism than schizophrenic patients (Vaughn & Leff, 1976b). However, it is also important to note that the source of EE tends to co-vary with diagnosis. Whereas the majority of schizophrenic patients returned to live with their parents after discharge, most depressed patients in the studies reviewed above returned to live with their spouses (Coiro & Gottesman, 1996). This pattern suggests that high-EE or criticism from a spouse may be particularly deleterious to mental health. Given the primacy of romantic relationships for adults, being criticized by a spouse may have a powerful impact. Spousal criticism may also be more threatening than parental criticism for adults because it may more easily elicit fears of abandonment and cessation of the relationship (Hooley & Teasdale, 1989; Hooley et al., 1986).

The Role of Childhood Experiences in Adult Depression

A number of negative childhood experiences may create vulnerabilities for adult depression and/or for the potentially depressogenic interpersonal adult variables described above (i.e., insecure attachment and EE). The notion that childhood experiences can cause or predispose individuals to experience difficulties later in life certainly has a long tradition in psychology, which can be traced to the early works of Freud, if not earlier (Brewin et al., 1993). Two childhood experiences which may be of particular relevance to men's depression, and which will be examined in this study, are parental rejection and physical abuse. Both these variables are linked conceptually to the adult variables discussed above.

Parental Rejection in Childhood

A negative childhood relationship with the parents may be an important contributor to later depression and its correlates. Self-criticism in adulthood, for example, appears to be

correlated with childhood parental emphasis on achievement (McCranie & Bass, 1984) and with paternal control and demands for conformity (Whiffen & Sasseville, 1991). More directly relevant, there is evidence that some parental variables (e.g., parental criticism, high expressed emotion, parental depression) are associated with major affective disorders and dysthymia in children (Asarnow et al., 1993; Downey, Khouri, & Feldman, 1996; Phares & Compas, 1992). Similarly, recollections of negative interaction patterns with parents in childhood are associated with later, adult depression (Blatt, 1974; Gerlsma, Emmelkamp, & Arrindell, 1990).

A recent review of the impact of childrearing practices on emotional functioning concluded that rejection and control by parents seem to be reliably correlated with later depression and anxiety (Rapee, 1997). Of particular relevance to this study, there is some indication that parental rejection may be more strongly associated with depression (Rapee, 1997). Consistent with this view, maternal acceptance in childhood has been found to be negatively correlated with adolescent depressive symptoms (Garber, Robinson, and Valentiner, 1997; Rohner, 1976, 1998). Parental rejection has also been repeatedly found to be a reliable predictor of depression in childhood, adolescence and adulthood (Crook, Raskin, & Eliot, 1981; Lefkowitz & Tesiny, 1984; Rohner, 1998; Whitbeck, Hoyt, Simons, Conger, Elder, Lorenz & Huck, 1992) as well as depression relapse and poor outcome in childhood depression (Poznanski, Krahenbuhl, & Zrull, 1976). These findings are consistent with previous theory on the impact of parental rejection (Downey et al., 1996; Rohner, 1976, 1986).

Assuming that recollections of parenting in such studies are relatively accurate¹, one possible implication is that having a parent who is rejecting may put the individual at risk for later

¹ The reliability of retrospective accounts of childhood parenting practices is an important measurement issue (Brewin, Andrews, & Gotlib, 1993) addressed further on in this dissertation.

depression (Blatt, 1974; Rohner, 1976). Thus, it is possible that an early, negative relationship with the parents is an important factor in the development of a predisposition or vulnerability to depression. It has further been suggested that general childhood maltreatment by parents who tend to be critical, cold, hostile and judgmental is essentially experienced by children as parental rejection (Rohner, 1986). Moreover, such experiences may lead children to develop a heightened sensitivity or vulnerability to interpersonal rejection and criticism later in life (Downey et al., 1996; Rohner, 1976, 1986). Criticism may be experienced as a rejection of the self by such vulnerable individuals (Rohner, 1986). Therefore, parental rejection in childhood may be viewed as conceptually related to spousal criticism or EE in adulthood. Thus, parental rejection in childhood may render men more sensitive or vulnerable to potentially depressing adult experiences (Downey et al., 1996; Rohner, 1986), such as high spousal EE.

Parental rejection may also be related to potentially depressing attachment problems. Attachment theory posits that the quality of childhood relationships with caregivers shapes the individual's attachment and the corresponding internal working models of self and other (Bowlby, 1982). Given this, negative childhood experiences of rejection from such caregivers could create an attachment vulnerability or predisposition in the child for depression later in life (Bowlby, 1980). There is ample evidence that depressive symptomatology and dysfunctional childhood attachment histories are correlated (Carnelley, Pietromonaco, & Jaffe, 1994; Cole-Detke & Kobak, 1996; Pettem, West, Mahoney, & Keller, 1993; Priel & Shamai, 1995). Experiences of parental coldness and rejection could lead to insecure attachment, and to the corresponding and potentially depressogenic beliefs that one is worthless, unloveable, and cannot expect acceptance, caring or availability from others, in particular from attachment figures (Rohner, 1998). Thus, as

with the construct of spousal EE, adult attachment may also be seen as conceptually related to parental rejection in childhood. Parental rejection may render men especially vulnerable to potentially depressing adult attachment difficulties.

Physical Abuse in Childhood

Another childhood experience, being the victim of violence or physical punishment or aggression, is of relevance to this study. The literature suggests that physical abuse in itself may be an important variable for understanding depression. Childhood physical abuse in general has been implicated as a risk factor for numerous psychological problems and disorders, including post-traumatic stress disorder, substance abuse, schizophrenia, anxiety disorders, and depression (Duncan, Saunders, Kilpatrick, & Hanson, 1996; Gross & Keller, 1992; Kashani, Shekim, Burk & Beck, 1987; Malinosky-Rummell & Hansen, 1993; Wexler, Lyons, Lyons, & Mazure, 1997). In women, depression appears to be an important long-term effect of childhood physical abuse (Malinosky-Rummell & Hansen, 1993). A recent national survey in the U.S., for example, found that adult women who were physically assaulted as children had significantly greater rates of lifetime and current depression compared to nonassaulted women (Duncan et al., 1996). Women who reported experiencing physical abuse as children are more likely to suffer from low self-esteem, feelings of shame, and depression (Briere & Runtz, 1988; Fox & Gilbert, 1994).

There is evidence that a significant number of men are physically abused as children (Malinosky-Rummell & Hansen, 1993). Research on the long-term consequences of physical abuse in men has tended to focus primarily on its relationship to other problems, such as delinquency, the perpetration of domestic violence, interpersonal problems, and vocational difficulties (Malinosky-Rummell & Hansen, 1993). Studies involving men who abuse alcohol or

other drugs have found, however, that depression in these men is associated with physical abuse in childhood (Schaefer, Sobieraj, & Hollyfield, 1988). There is therefore at least some evidence to suggest that childhood physical abuse may be an important variable in understanding depression in men.

This view is consistent with theoretical formulations that explicitly link the trauma and inner shame/self-hatred associated with boyhood physical abuse and boys' "culture of violence", with male psychopathology later in life, including depression (Downey, Khouri, & Feldman, 1996; Levant, 1996; Pittman, 1993; Real, 1997). For example, Real (1997) has speculated that:

"Psychological violence lies at the core of traditional socialization of boys in our culture. For many boys, that social wound is further aggravated by their unique family experiences [of violence]... those growing up in especially difficult circumstances... are most at risk for depression later in life." (p.198).

Similarly, it has been argued that traditional male gender role ideology, under which most contemporary men grew up, exposed many of these men to "normative" boyhood conditions which were (sometimes by definition) traumatic ordeals (Levant, 1996). Thus, many aspects of boyhood socialization, among others an emphasis on physical toughness and violence, may be viewed as inherently traumatic experiences which predispose men to problems later in life (Levant, 1996; Pittman, 1993). This suggests that the psychological effects of physical violence and abuse from boys' caretakers (or even their peers) may create a vulnerability for depression and for depressogenic experiences in adulthood. In particular, childhood physical abuse may be experienced as an severe form of parental rejection which may render the individual vulnerable to adult attachment difficulties (Bowlby, 1980; Downey, Khouri, & Feldman, 1996; Real, 1997; Rohner, 1976; Rohner, Bourque, & Elordi, 1996) and perhaps to a lesser extent spousal criticism.

Childhood physical abuse may therefore be seen as conceptually related to adult attachment and spousal EE.

The Present Study and Hypotheses to be Tested

The present study tested a number of hypotheses regarding men's depressive symptomatology in a community sample of married or cohabiting men and their partners. As mentioned earlier, research into men's depression is scarce at present, given its relatively short history. This study is among the first to examine these constructs directly in relation to men's depression. Thus, the use of a community sample was deemed appropriate in this case given the novel nature of the research and hypotheses. The six independent variables studied were divided into three adulthood variables and three childhood variables. The adulthood variables included: 1) perceiving the spouse as tolerant versus intolerant and critical (i.e., termed "Spousal EE"); as well as two dimensions of adult attachment, specifically 2) the individual's level of reported anxiety in relationships, particularly around fears of being abandoned and not being loved (i.e., "Anxiety"); and 3) their reported degree of comfort with closeness/intimacy and with trusting and depending on their partner (i.e., "Closeness"). The childhood variables included: 1) self-reported childhood physical abuse (i.e., "Physical Abuse"); and two sources of reported childhood parental rejection, specifically 2) rejection by the mother (i.e., "Maternal Rejection"); and 3) rejection by the father (i.e., "Paternal Rejection").

One goal of this study was to examine specific adulthood and childhood variables which were expected to be associated with depression in men. As mentioned above, the adulthood variables included reported attachment to the spouse and reported spousal EE. Recall that depressive symptoms may be linked in various ways to both insecure attachment to and criticism

from the spouse. Accordingly, it was hypothesized that insecurely attached men would show greater levels of depressive symptomatology than more securely attached men, who would show less. It was also anticipated that men who report high spousal EE would show greater levels of depressive symptomatology than those who experience low spousal EE. Predictions were also made regarding the childhood variables, reported parental rejection and reported physical abuse by parents. The literature reviewed above suggested that depressed men may have experienced more parental rejection early in life than their nondepressed counterparts. Thus, it was predicted that parental rejection in boyhood would be associated with higher levels of depressive symptomatology in adulthood, and that the absence of parental rejection (e.g., parental acceptance and warmth) would be associated with lower levels of depressive symptoms. Finally, there is both theory and some empirical evidence to suggest that physical abuse may contribute to the development of men's depression. Thus, it was anticipated that boyhood physical abuse would be positively associated with men's depressive symptomatology in adulthood.

As described above, the quality of the individual's current (adult) interpersonal context, as well as the occurrence of certain experiences in childhood, were both hypothesized to contribute to the likelihood of depression occurring. It should be noted that based on the interpersonal research literature, it was assumed that the proximal, current interpersonal context is normally a more potent determinant of depression than are more distal childhood influences. In addition to the main effects hypothesized above, the present study examined two plausible yet competing sets of relationships among these variables in predicting depression: a moderating model and a mediational causal path model.

A Moderating Model

One plausible model of men's depression examined in the present study essentially posits *moderating* links between childhood events and adult marital difficulties in predicting depressive symptomatology. Baron and Kenny (1986) defined a *moderating variable* as one which "affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable" (p.1174). This model essentially proposes that certain negative experiences in childhood can create a vulnerability for conceptually analogous negative experiences in adulthood, which, if they occur, will ultimately result in depression. In other words, the deleterious effects of a negative interpersonal context in adulthood will be augmented when there is a pre-existing vulnerability, stemming from childhood experiences, for such difficulties. Thus, an individual who encountered a number of negative interpersonal childhood experiences, and who is currently living within a distressing interpersonal context, should be especially likely to show signs of depression. By contrast, it follows that positive experiences in childhood (or the absence of negative ones) will tend to buffer or protect against the negative impact of adverse marital conditions, and vice versa. Thus, the model holds that adulthood experiences can interact with those in childhood to either increase or decrease, in an exponential fashion, the likelihood of depressive symptoms occurring.

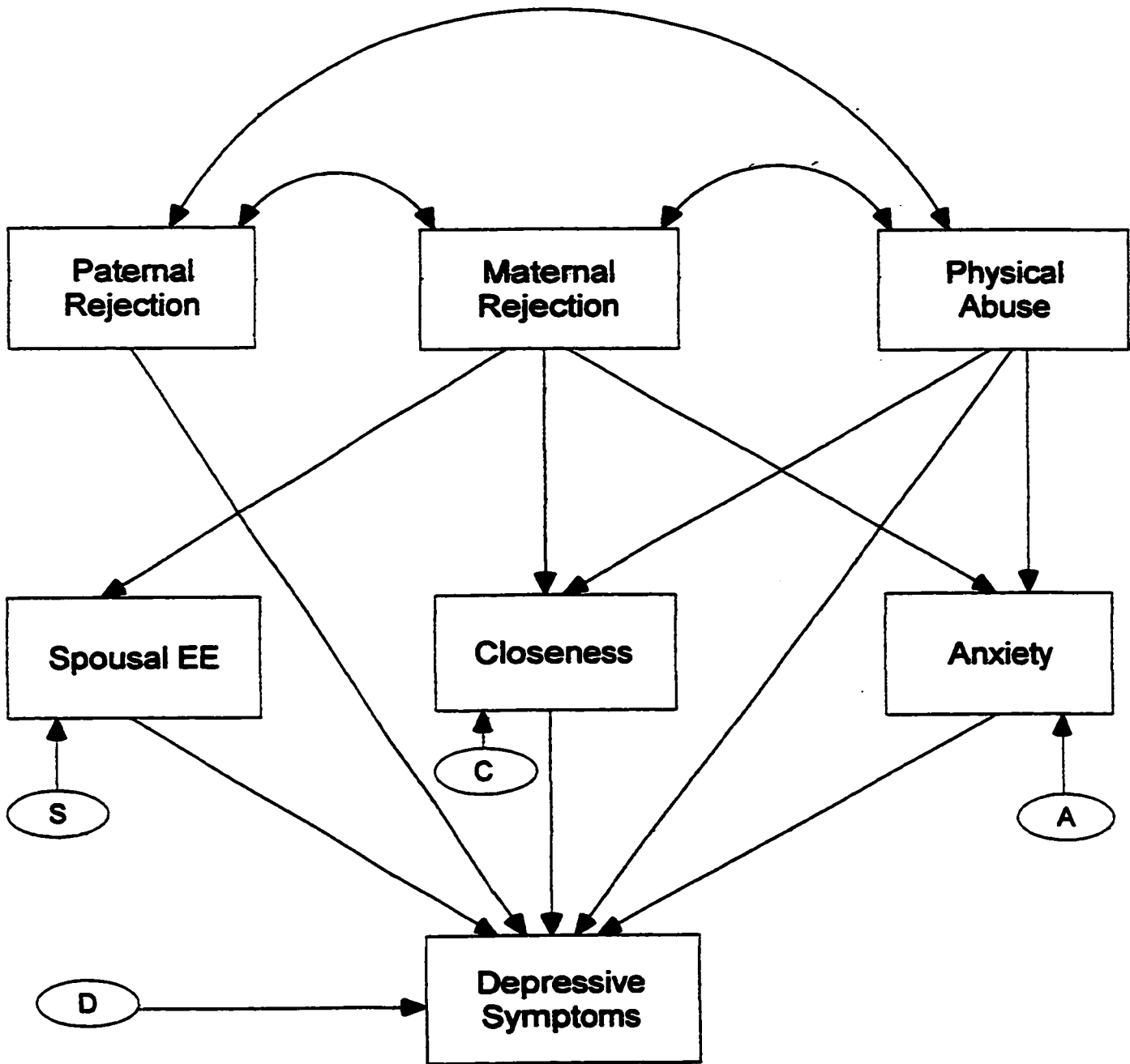
Thus, moderators are variables which influence the magnitude of relationships between independent variables and dependent ones (Baron & Kenny, 1986). Within this framework, one possibility is that childhood experiences of parental rejection and physical abuse moderate the impact of marital difficulties in adulthood, heightening their negative influence. Thus, parental warmth and acceptance, and the absence of physical abuse, would also buffer the negative

influence of these adult relationship variables. Alternatively, difficulties with adult attachment and spousal EE may moderate (augment) the negative impact of deleterious childhood experiences. Thus, a healthy relationship in adulthood characterized by secure attachment and low spousal EE may also have corrective or protective effects for childhood vulnerabilities, decreasing the negative influence of these factors.

A Causal Path/Mediational Model

The present study also examined an alternative model of the direct and indirect (i.e., mediated) relationships between childhood experiences and adult marital difficulties in predicting depressive symptomatology. A causal path diagram of the hypothesized model appears in Figure 1. Schematic presentations of path models traditionally represent observed variables (e.g., the dependent and independent variables under study) using titled boxes, and unobserved variables (e.g., error terms) by ellipses. Variables within the path are said to be *exogenous* if they do not receive causal inputs from any other variables within the path diagram, and *endogenous* if they have causal sources within the diagram/model (Loehlin, 1992). The arrows in the diagram define the relationships among these variables, specifying which variables influence direct or indirect changes in which other variables, or which variables are correlated. A unidirectional straight arrow depicts the direction of a postulated causal influence between two variables in the model. A curved bidirectional arrow indicates a correlation or covariance between a pair of exogenous variables. Each of the endogenous downstream observed variables (in boxes) has a residual or error term associated with it, represented by the unidirectional arrows directed from ellipses to boxes in Figure 1.

Figure 1
Postulated Causal Path Model



Note. Depressive Symptoms = BDI. Maternal Rejection = MPARQ. Paternal Rejection = FPARQ. Physical Abuse = CTS. Closeness = RAAS Closedep. Anxiety = RAAS Anxious. Spousal EE = LEE. D = error term associated with Depressive Symptoms; A = error term associated with Anxiety; C = error term associated with Closeness; S = error term associated with Spousal EE.

Based on the literature reviewed above, this model a priori specified direct and indirect causal paths from the independent variables to the dependent variable, as follows. First, the proximal, current interpersonal context was assumed to influence depression more strongly than more distal childhood experiences. Thus, the model stated that the quality of the adult marital relationship would directly influence the level of adult depressive symptomatology as measured by BDI scores. More specifically, it was hypothesized that being comfortable with intimacy and with trusting and depending on the partner (i.e., “Closeness” in the path diagram) would result in lower levels of depressive symptomatology, and that difficulties in this area would result in higher levels of depressive symptoms. Similarly, it was hypothesized that an anxious attachment to the partner characterized by pronounced fears around being abandoned or unloved by them (i.e., “Anxiety”) would result in greater levels of depressive symptomatology, and that an absence of such an anxious attachment pattern would result in fewer depressive symptoms. Moreover, it was predicted that perceiving the spouse as intolerant and critical (i.e. “Spousal EE”) would result in higher levels of depressive symptomatology, but that perceiving them as tolerant would be negatively associated with depressive symptoms.

With regard to the childhood variables, it was hypothesized that the quality of a man’s reported relationship with his mother in boyhood would influence the quality of his adult relationship, and that (as specified above) this would in turn influence the man’s level of reported adult depressive symptomatology. According to Baron and Kenny (1986), a *mediating variable* is one that accounts for, or explains, the relationship between predictor and criterion variables. Thus, within a mediational framework, the quality of the marital relationship would be said to mediate the influence of the relationship with the mother on depressive symptoms. More

specifically, it was hypothesized that for men, perceiving the mother as cold, critical, hostile and rejecting (i.e., “Maternal Rejection”) might contribute to later difficulties in developing a close, intimate and trusting relationship with the spouse, fears of abandonment and/or of being unloved by the spouse, and perceiving the spouse as intolerant and critical. Conversely, it was implied that a positive, loving relationship with the mother in childhood would result in greater comfort in developing a close, trusting, interdependent, secure and supportive relationship with the spouse. In turn, each of these three relationship variables would contribute to depressive symptoms as outlined above.

By contrast, the model considered the possibility that the quality of men’s relationship with their father will have a more direct influence on adult depressive symptomatology, one not necessarily mediated by any of the observed variables within the model. More specifically, it was hypothesized that perceiving the father as critical, hostile and rejecting in childhood (i.e., “Paternal Rejection”) would contribute to higher levels of adult depressive symptomatology. It was implied that a positive boyhood relationship with the father could also serve a protective function, and would be associated with fewer depressive symptoms. However, it was surmised that the boyhood relationship with the father would have relatively little influence on men’s marital relationship. Unlike mothers, fathers have not traditionally been the primary caregivers of children. As such, it was suspected that fathers would provide a weaker model of adult intimate relationships, in particular primary attachment relationships. It was also believed that the relationship with the mother would have a more powerful influence on how a man relates to women in adult life, in particular a female attachment figure (an important consideration given that the majority of men in the sample appeared to have female partners).

The model also postulated both a direct causal link from physical abuse in childhood (i.e., “Physical Abuse”) to adult depressive symptoms, as well as indirect effects mediated by the adult attachment dimensions/variables. As reviewed in the introduction to this dissertation, physical abuse has been linked to depressive symptoms in previous studies, suggesting that a direct path in the diagram between these two variables may be indicated. However, physical abuse may also be viewed, and experienced by the child, as an extreme and highly impacting form of caretaker rejection which may contribute to attachment difficulties later in life (Bowlby, 1980; Downey, Khouri, & Feldman, 1996; Real, 1997; Rohner, 1976; Rohner, Bourque, & Elordi, 1996). Childhood physical abuse may therefore be seen as conceptually related to the two attachment dimensions described above, as indicated by the path arrows from Physical Abuse to Anxiety and Closeness. There was, however, no strong theoretical basis to suspect that the influence of physical abuse on depressive symptomatology would be mediated by perceived spousal expressed emotion. In other words, a direct connection between being physically abused as a child and perceiving the spouse as critical was not readily apparent, and was not specified in the model.

Method

Participants and Procedure

Potential participants were recruited via advertisements in the local media describing the present study in general terms, and inviting them to call in for further information. Sample advertisements are provided in the Appendix. Participants were first screened over the phone to determine whether they met the basic eligibility criteria of being male and in a current intimate relationship of at least two years’ duration. They were provided with a general description of the purpose of the study, and a discussion of what their participation would entail. A copy of the

recruitment script appears in the Appendix. Callers who met eligibility criteria and who were interested in participating were sent a package containing a pre-stamped, pre-addressed envelope for returning completed questionnaires, two cover letters/ informed consent forms, a demographic questionnaire, and the five self-report measures described below. A copy of the questionnaire package appears in the Appendix. Participants were asked to complete their self-report questionnaires independently, without input from others. Those who had not returned their questionnaire package after approximately two months of the date of mailing were called to confirm that they had received the package and were still interested in participating.

Over a period of nine months, a total of 125 inquiries were made regarding participation in the study. Of these potential participants, 25 men did not meet eligibility criteria at the initial phone screen, or were unable to participate for various reasons (e.g., could not be reached by phone or mail). Of the 100 packages that were sent out, 80 were returned, yielding an 80% response rate. Of these 80 returned questionnaire packages, three were excluded because they did not meet eligibility criteria. Yet another participant was deleted from the analyses due to his being an outlier on several variables (see below), yielding a final sample of 76 participants.

Following data collection, a draw for \$200 was held for participants as described in the recruiting materials. A receipt signed by the winner of the draw appears in the Appendix. Participants were also given the option of receiving a summary of the results of the study if they included their address on their returned consent forms.

Measures

The self-report measures used in the study are described below. Chronbach's alpha coefficient, an estimate of the internal consistency of a measure, was calculated for each measure

to ensure satisfactory levels of reliability. Table 1 shows alpha coefficients for all self-report measures used in the study. Internal consistency for all measures were within limits conventionally regarded as acceptable ($\alpha \geq .70$).

Background Information

A background questionnaire was used to obtain demographic information about participants' age, relationship status and duration of relationship, number of biological children and number of children living with the respondent, as well as level of education, employment, and income.

Depressive Symptoms

The Beck Depression Inventory (BDI; Beck et al., 1961; Beck et al., 1979) is a well-established, 21-item self-report measure of the intensity of current depressive symptomatology. Meta-analyses by Beck, Steer, and Garbin (1988) of numerous psychometric studies yielded a mean alpha coefficient of .86, indicating that the BDI possesses good internal consistency across various populations. Test-retest reliability estimates for the BDI have been found to range from .60 to .90, for testing intervals ranging from one hour to four months (Beck et al., 1988). Beck et al. (1988) also reviewed 35 studies comparing the BDI to various other measures of depression, and found mean coefficients of .73 and .60 (for psychiatric and non-psychiatric samples, respectively) across these measures.

Maternal and Paternal Rejection

The adult Parental Acceptance-Rejection Questionnaire (PARQ; Rohner, 1986) is a 60-item, self-report measure of respondents' retrospective assessments of their childhood in terms of perceived parental warmth. Respondents are asked to rate parental behaviours (not perceived

Table 1.
Internal Consistency (Chronbach's Alpha) for Measures Used

Measures	Coefficient Alpha
1. BDI	.90
2. MPARQ	.97
3. FPARQ	.97
4. CTS	.71
5. RAAS-Closedep	.89
6. RAAS-Anxious	.91
7. LEE	.90

Note. 1. BDI = Depressive Symptoms. 2. MPARQ = Maternal Rejection. 3. FPARQ = Paternal Rejection. 4. CTS = Physical Abuse. 5. RAAS-Closedep = Closeness and dependency (secure attachment). 6. RAAS-Anxious = Anxiety (anxious attachment). 7. LEE = perceived Spousal Expressed Emotion (intolerance/criticism).

attitudes) on four-point scales, yielding an assessment of four basic dimensions: 1) warmth and affection; 2) hostility and aggression; 3) indifference and neglect; 4) undifferentiated rejection. These four scales yield a total score reflecting a general level of parental acceptance-rejection. The psychometric properties of the PARQ have been assessed across numerous sociocultural settings (Rohner, 1986). The PARQ's test-retest reliability appears to be adequate even at intervals of seven years (Cournoyer & Rohner, 1996). Scores obtained in childhood and adolescence are significantly correlated (.62), suggesting that current recollections of parental acceptance and rejection are likely to be in at least moderate agreement with what would have been reported in childhood (Cournoyer & Rohner, 1996). Internal reliability estimates for the PARQ have been found to range from .86 to .95. (Rohner, 1986).

The PARQ also seems to have good construct validity as a measure of the warmth (i.e., acceptance-rejection) dimension of parenting that is valid across a variety of cultural groups (Rohner & Cournoyer, 1994). Factor analyses have consistently yielded the expected factors (Rohner, 1986). The PARQ also predicts scores on a number of measures of psychological outcome. Maternal rejection, as measured by the PARQ, is reliably correlated in predicted ways with adolescent academic difficulties and drug use (Younge & Deffenbacher, 1996) as well as measures of (external) locus of control (Rohner, Chaille, & Rohner, 1980), personality, self-esteem (Kitahara, 1987) and a number of other measures (Rohner, 1986).

In the current study, participants completed two versions of the PARQ, one with reference to their mother (MPARQ), the other with reference to their father (FPARQ).

Physical Abuse

Four physical aggression items from the Conflict Tactics Scale (CTS; Straus, 1979) served as a measure of physical abuse or punishment in childhood. The CTS is a widely used measure of

intrafamilial conflict, and has been applied in a variety of settings (Straus, Hamby, & Sugarman, 1996). It has been found to have good test-retest reliability (Straus, et al., 1996; Widom & Shepard, 1996) as well as discriminant validity (Widom & Shepard, 1996). Confirmations of adult recall of physical assault in childhood have shown the scale to yield accurate estimates of abuse, with some tendency for abused individuals to actually under-report physically abusive events (Widom & Shepard, 1996).

Adult Attachment

The Revised Adult Attachment Scale (RAAS; Collins & Read, 1990) is an 18-item, self-report measure of attachment using five-point Likert scales ranging from *not at all characteristic of me* (1) to *very characteristic of me* (5). The scale, developed by Collins and Read (1990) in part to assess the underlying dimensions of adult attachment styles “without losing the important conceptual framework that ties them together” (p.650), is an improvement upon Hazan and Shaver’s (1987) original attachment measure prototypes. Factor analyses originally yielded three underlying dimensions: 1) Close (how comfortable the individual feels with closeness and intimacy); 2) Depend (how much they feel they can depend on and trust attachment figures); and 3) Anxiety (level of anxiety or fears around being unloved and/or abandoned) (Collins and Read, 1990; Wilson and Costanzo, 1996).

Test-retest reliability indices for the RAAS are adequate; coefficients for two-month and six-month periods have been found to range from 0.52 to 0.71 across the three scales (Burge et al., 1997; Collins & Read, 1990). In terms of the scale’s internal consistency, Wilson and Costanzo (1996) obtained alpha coefficients of 0.84, 0.73, and 0.70 for the Depend, Close, and Anxiety scales, respectively. Similarly, a study by Burge, Hammen, Davila, Daley, Paley,

Lindberg, Herzberg and Rudolph (1997) yielded alpha coefficients of 0.83, 0.74 and 0.85, respectively. These findings replicate the original alpha coefficients (0.75, 0.69, and 0.72, respectively) provided by Collins and Read (1990).

Collins and Read (1990) also examined the relationship between RAAS-derived adult attachment scores and a variety of theoretically related constructs (e.g., trust, romantic love, self-esteem, relationships with parents in childhood, and others). Overall, findings supported the hypothesized relationships with other measures for the three scales. For example, Closeness scores were predictive of relationship satisfaction in both the respondent and their spouse. The subscales are also significantly correlated, in the expected directions, with positive memories of childhood experiences (Hammen, Burge, Daley, Davila, Paley, & Rudolph, 1995). In a similar vein, secure adult attachment was found to be significantly (positively) correlated with self-esteem and recollections of warm, accepting parenting practices (Collins & Read, 1990).

More recently, findings that the Close and Depend scales are highly intercorrelated have led many researchers to use the aggregate of the two scales in their analyses, providing a closer fit with Griffin and Bartholomew's (1994a) bi-dimensional model of attachment (Fraley, 1999). In keeping with this method, the Close and Depend dimensions were collapsed for the analyses conducted in this study. The aggregate scale, RAAS Closedep, yielded an alpha of .89 for the current study. Thus, the two scales used in this study were RAAS Closedep (represented by Closeness in the path diagram) and RAAS Anxious (represented by Anxiety in the diagram).

Spousal Expressed Emotion

The Level of Expressed Emotion scale (LEE; Cole & Kazarian, 1988) is a 60-item, self-report measure of the perceived emotional climate in the individual's most influential relationship.

In addition to providing an overall score, the complete LEE scale assesses four attitudes or response styles of significant others: intrusiveness, emotional responsivity, attitude towards illness, and tolerance (Cole & Kazarian, 1988). The LEE's total score and subscales have good internal consistency, with alpha coefficients of .98 and .93 to .96, respectively (Cole & Kazarian, 1988; Gerslma, Van der Lubbe, & Van Nieuwenhuisen, 1992). Additionally, scores appear to be relatively independent of age, sex, and number of intimate contacts (Cole & Kazarian, 1988). The scale also has adequate test-retest reliability, ranging from .67 to .82 for the subscales and overall score over a six-week interval (Cole & Kazarian, 1988).

The LEE also possesses adequate concurrent validity. It correlates well with other measures of EE such as the Influential Relationships Questionnaire (Cole & Kazarian, 1988; Kazarian, Malla, Cole, & Baker, 1990), and with what is considered to be the golden standard in EE research, the Camberwell Family Interview (Brown & Rutter, 1966; Kazarian et al., 1990; Vaughn & Leff, 1976b). Like the Camberwell, the LEE is also a significant predictor of relapse or rehospitalization of schizophrenic patients, even up to five years following the initial assessment (Cole & Kazarian, 1993; Donat, 1996). Given its relatively succinct, self-report format, the LEE may be used as a significantly more time-expedient substitute for the more cumbersome Camberwell Interview (Kazarian et al., 1990; Kazarian, 1992). The Tolerance subscale of the LEE was used in this study in place of the total LEE given that it correlates highly (.98) with overall scale scores (Cole & Kazarian, 1988).

Results

Preliminary Analyses

Demographic Characteristics of the Sample

Participants ranged in age from 22 to 72 years, with a mean age of 40 years. Twenty percent of the sample were aged below 30, 35.3% were aged between 30 and 40 years, 26.3% were aged between 40 and 50, 14.5% were aged between 50 and 60, and 3.9% were aged 60 years or above. Fifty-one (67.1%) of the participants were married, and 25 (32.9%) of them were cohabiting with a partner. The mean duration of these relationships was 10.7 years, with a range between two and 46 years. Other demographic data on the sample, including number of children, educational and occupational status, and level of household income are provided in Table 2.

Data Screening

The data were first examined for accuracy of entry, missing data and the presence of outliers. Although some missing values for items were observed, these were small in number and seemingly random given that they did not consistently appear on the same measures across participants. As a result, group means were substituted where appropriate. Z-scores were used to identify univariate and multivariate outliers. One participant, identified as having extreme scores more than 3.29 standard deviations from the sample mean on three continuous variables, was removed from the analyses as an outlier (Tabachnick & Fidell, 1996). This was followed by analyses to test for assumptions of normality, homogeneity of variance, linearity, multicollinearity and singularity. Univariate normality was assessed via evaluation of the skewness and kurtosis values provided by SPSS Frequencies. All variables were within acceptable ranges for skewness and kurtosis, save for Physical Abuse (CTS), which showed a significant level of kurtosis ($z =$

Table 2.
Other Demographic Characteristics of Participants (n = 76)

Variable	Number and percentage of total sample
Number of Children	
0	26 (34.2%)
1	24 (31.6%)
2	16 (21.1%)
≥3	10 (13.2%)
Educational Status (level completed)	
Grade school	1 (1.3%)
High school	10 (13.2%)
Some college or university	22 (28.9%)
College diploma	14 (18.4%)
University degree	16 (21.1%)
Professional degree	4 (5.3%)
Master's degree	7 (9.2%)
PhD/Doctoral degree	2 (2.6%)
Occupational Status	
Unskilled labour	3 (3.9%)
Skilled labour	12 (15.8%)
Sales and/or service	15 (19.7%)
Office and/or clerical	7 (9.2%)
Professional	29 (38.2%)
Student	0 (0%)
Full-time homemaker	3 (3.9%)
Retired	3 (3.9%)
Unemployed	4 (5.3%)
Household Income	
\$0-14,000	4 (5.3%)
\$15-29,000	10 (13.2%)
\$30-45,000	13 (17.1%)
\$46-59,000	12 (15.8%)
\$60-74,000	17 (22.4%)
\$75,000+	20 (26.3%)

5.48). Multicollinearity and singularity were assessed by examining Pearson coefficients among the independent variables (presented in Table 4). All variables were well below the conventional cutoff value of $r = .90$, suggesting that multicollinearity and singularity were not present.

Means and Correlations among Measures

Means and standard deviations for the self-report measures of Depressive Symptoms (BDI), Maternal and Paternal Rejection (MPARQ and FPARQ, respectively), Childhood Physical Abuse (CTS), attachment Anxiety and Closeness (RAAS Anxious, RAAS-Closedep), and Spousal EE (LEE) appear on Table 3. In terms of the BDI score distribution, Beck et al. (1979) proposed that BDI scores between 0 and 13 be considered indicative of “minimal” levels of self-reported depressive symptomatology, scores between 14 to 19 of “mild” levels, 20 to 28 of “moderate” levels, and 29 to 63 of “severe” levels. Seventy-one percent of participants scored within the “minimal” range, 7.8% in the “mild” range, 17.2% in the “moderate” range, and 3.9% in the “severe range”. Although the mean BDI score of 10.25 for the sample lies within the “minimal” range of reported depressive symptomatology, this score is somewhat elevated for a community sample. This likely reflects the recruiting strategy employed, which called for both “unhappy” and generally satisfied men to participate in the study.

In terms of reported childhood parental acceptance-rejection, PARQ scores between 90-110 are considered typical of adults who perceive themselves as having been generally accepted as children, and scores nearing 140 or higher indicate serious to severe levels of perceived parental rejection (Rohner, 1986; personal communication, 2000). Mean scores showed that on average, men in the sample perceived their fathers as having been more rejecting than their mothers. Consistent with this, 22.2% of men rated their fathers as having been seriously rejecting of them

Table 3.
Means (M) and Standard Deviations (SD) of Measures

Variable	<u>M</u>	<u>SD</u>
1. BDI	10.25	8.28
2. MPARQ	99.92	31.67
3. FPARQ	116.08	38.22
4. CTS	1.84	3.27
5. RAAS-Closedep	23.6	5.6
6. RAAS-Anxious	12.53	7.4
7. LEE	20.44	4.57

Note. 1. BDI = Depressive Symptoms. 2. MPARQ = Maternal Rejection. 3. FPARQ = Paternal Rejection. 4. CTS = Physical Abuse. 5. RAAS-Closedep = Closeness and dependency (secure attachment). 6. RAAS-Anxious = Anxiety (anxious attachment). 7. LEE = perceived Spousal Expressed Emotion (intolerance/criticism).

(i.e., a score of 140 or above on the Mother PARQ), whereas only 14.5% rated their mothers in this way. Similarly, the majority of men (52.6%) rated their mothers as generally accepting and warm (i.e., total PARQ scores under 90), whereas only 29.2% of men rated their fathers in this way. These rates are comparable to those of other North American samples in studies using the PARQ (Rohner, 1986). The scores indicate that while mothers were generally rated as being warmer and more accepting than fathers, a large proportion of the sample reported having felt accepted by their parents in childhood. However, a significant portion of men in the sample reported experiencing their parents, in particular their fathers, as highly rejecting of them.

With regard to reported childhood physical abuse, it should be noted that the abuse experiences described in the CTS questionnaire were relatively severe (e.g., being choked, kicked, or hit with a fist by a parent), and that rates of reported abuse would likely have been higher had less extreme abusive experiences been queried. In the current sample, 65.8% of men reported no such abuse experiences, while 34.2% reported at least one, 25% reported at least 2-5, and 14.5% of the sample reported having experienced 5 or more physically abusive experiences in childhood. It is difficult to assess how the rates of abuse reported by the sample compare to levels in the general population. Estimates of abuse rates vary widely depending on how abuse is defined (Kashani et al., 1987), and are severely limited due to the fact that the vast majority of abuse cases are believed to go unreported (Statistics Canada, 2000).

In terms of the self-reported attachment dimensions, the means and standard deviations of RAAS Close, Depend, and Anxiety scale scores from the present study are comparable to the original norms for the measure reported by Collins and Read (1990). On average, respondents in the present sample reported slightly less Anxiety ($\bar{x} = 12.5$) in their relationships than did the

Collins and Read (1990) sample ($\bar{x} = 16.2$). Similarly, their mean scores on the Close ($\bar{x} = 24.3$) and Depend ($\bar{x} = 22.8$) scales were somewhat higher than those of the original sample ($\bar{x} = 20.6$ and $\bar{x} = 18.3$, respectively). The slightly greater overall reported security in relationships may reflect the fact that men in the present sample were all involved in long-term relationships, compared to Collins and Read's (1990) sample of 406 undergraduates who may have been less likely to have been in committed relationships. In terms of perceived spousal EE, norms and empirical evidence to determine cut-off points for LEE scales are lacking (Cole & Kazarian, 1993). However, sample scores were evenly distributed above and below the sample mean, and covered the full range of possible scores on the LEE. Although the distribution of scores was slightly skewed in the direction of lower perceived spousal EE, a significant proportion of the sample reported experiencing high spousal EE as well.

Zero-order correlations among the measures are reported in Table 4. As hypothesized, all variables of interest correlated significantly, and in the expected directions, with the dependent measure.

Formal Hypothesis Testing

Tests of the Moderating Hypotheses

The moderating hypotheses described above stated that negative childhood experiences of parental rejection/criticism and physical abuse would interact with the impact of problematic adult attachment and spousal EE. To test the moderating hypotheses, the analytic framework for testing moderator effects using multiple regression analyses described by Baron and Kenny (1986) and others (Holmbeck, 1997; Pedhazur, 1982) was employed. Moderation implies that the causal relationship between two variables varies as a function of the moderator variable (Baron &

Table 4.
Intercorrelation Matrix for Predictor and Criterion Variables (Pearson Coefficients)

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
1. BDI	1.00						
2. MPARQ	.47**	1.00					
3. FPARQ	.37**	.51**	1.00				
4. CTS	.30**	.58**	.30*	1.00			
5. RAAS Closedep	-.64**	-.37**	-.09	-.15	1.00		
6. RAAS-Anxious	.55**	.22	.15	.15	-.62**	1.00	
7. LEE	.44**	.21	.10	.20	-.62**	.68**	1.00

* p<.05

**p<.01

Note. 1. BDI = Depressive Symptoms. 2. MPARQ = Maternal Rejection. 3. FPARQ = Paternal Rejection. 4. CTS = Physical Abuse. 5. RAAS-Closedep = Closeness and dependency (secure attachment). 6. RAAS-Anxious = Anxiety (anxious attachment). 7. LEE = perceived Spousal Expressed Emotion (intolerance/criticism).

Kenny, 1986). To test moderation, a statistical analysis must therefore test for the presence of a significant differential effect of the independent variable on the dependent variable as a function of the moderator. In regression equations, this is done by adding the product (i.e., interaction term) of the continuous independent and moderator variables to the regression equation, and testing for its significance while the two other variables are controlled. The predictor and moderator main effects are entered into the equation first, followed by the interaction term between the two.

A series of nine hierarchical multiple regressions was conducted with Depressive Symptoms (BDI scores) as the dependent variable. For each analysis, the predictors were a combination of (A) one of the three childhood variables (either MPARQ, FPARQ, or CTS scores); (B) one of the three adulthood variables (either RAAS-Closedep, RAAS-Anxious, or LEE scores); and (C) the A×B interaction term representing the hypothesized interaction effect. Predictors A and B were entered first, as a block, followed by their interaction term in another block (Baron & Kenny, 1986). Results of the multiple regressions using RAAS Closedep, RAAS Anxious, and LEE scores as the main predictor variable appear in Tables 5, 6, and 7, respectively. Bonferroni correction was used to adjust for the number of regressions, such that the alpha level assigned to each equation was .006 ($\alpha = .05 / 9 = .006$). All the multiple regression equations yielded statistically significant $F(3, 75)$ values on the second step. However, no significant or near-significant interaction terms were found, either at the $\alpha = .006$ or $\alpha = .05$ levels, as evidenced by the nonsignificant ΔR^2 and β values in the second step. The moderating hypotheses were therefore not supported by any of the statistical analyses².

² Note that from a mathematical standpoint, equivalent nonsignificant results would have occurred had childhood events been conceptualized as the predictor, and the quality of the adulthood relationship as the moderator.

Table 5
Hierarchical Multiple Regression Moderating Analyses Predicting Depressive Symptomatology, RAAS Closedep as Predictor

Equations and Variables	R ²	F	ΔR ²	ΔF	β (t)	Part. Corr.
A. 1) RAAS-Closedep	.460	32.941***	.474	32.941***	-.887 (-2.824)**	-.32
MPARQ					-.102 (-.306)	-.04
2) RAAS-Closedep × MPARQ	.462	22.473***	.009	1.283	.406 (1.133)	.13
B. 1) RAAS-Closedep	.478	33.458***	.492	33.548***	-.546 (-2.180)*	-.26
FPARQ					.383 (1.238)	.15
2) RAAS-Closedep × FPARQ	.470	22.014***	.000	.048	-.082 (-0.220)	-.03
C. 1) RAAS-Closedep	.441	30.597***	.456	30.597***	-.634 (-6.168)***	-.59
CTS					.062 (0.167)	.02
2) RAAS-Closedep × CTS	.435	20.214***	.001	.155	.144 (.394)	.05

* p<.05 **p<.01 ***p<.006 (Bonferroni Correction)

Note. RAAS-Closedep = Closeness (secure attachment). MPARQ = Maternal Rejection. FPARQ = Paternal Rejection. CTS = childhood Physical Abuse. R² = adjusted R square. F = F-value associated with adjusted R square: For all analyses, F (2, 75) for Step 1, and F (3, 75) for Step 2. ΔR² = change in R square. ΔF = F change. β = Standardized Beta weights for each variable, from the final step of the regression equations (representing the unique contribution of each variable). (t) = t-value associated with β. Part. Corr. = partial correlation for each variable, from the final step of the regression equations.

Table 6
 Hierarchical Multiple Regression Moderating Analyses Predicting Depressive Symptomatology, RAAS Anxious as Predictor

Equation and Variables	R ²	F	ΔR ²	ΔF	β (t)	Part. Corr.
D. 1) RAAS-Anxious	.410	27.099***	.426	27.009***	.758 (2.865)***	.32
MPARQ					.553 (2.954)***	.33
2) RAAS-Anxious × MPARQ	.413	18.605***	.011	1.353	-.393 (-1.163)	-.14
E. 1) RAAS-Anxious	.400	24.629***	.417	24.629***	.160 (0.603)	.07
FPARQ					.045 (0.237)	.03
2) RAAS-Anxious × FPARQ	.410	17.479***	.019	2.272	.498 (1.507)	.18
F. 1) RAAS-Anxious	.331	19.520***	.348	19.520***	.564 (5.168)***	.52
CTS					.373 (1.953)	.22
2) RAAS-Anxious × CTS	.329	13.272***	.008	.854	-.188 (-.924)	-.11

* p<.05 **p<.01 ***p<.006 (Bonferroni Correction)

Note. RAAS-Anxious = anxious attachment. MPARQ = maternal rejection. FPARQ = paternal rejection. CTS = childhood physical abuse. R² = adjusted R square. F = F-value associated with adjusted R square: For all analyses, F (2, 75) for Step 1, and F (3, 75) for Step 2. ΔR² = change in R square. ΔF = F change. β = Standardized Beta weights for each variable, from the final step of the regression equations (representing the unique contribution of each variable). (t) = t-value associated with β. Part. Corr. = partial correlation for each variable, from the final step of the regression equations.

Table 7
Hierarchical Multiple Regression Moderating Analyses Predicting Depressive Symptomatology, LEE as Predictor

Equation and Variables	R ²	F	ΔR ²	ΔF	β (t)	Part. Corr.
G. 1) LEE	.319	18.536***	.337	18.536***	.531 (1.731)	.20
MPARQ					.681 (1.412)	.16
2) LEE × MPARQ	.313	12.375***	.003	.372	-.373 (-.610)	-.07
H. 1) LEE	.285	15.148***	.305	15.148***	.042 (.134)	.02
FPARQ					.361 (.777)	.09
2) LEE × FPARQ	.298	11.070***	.023	2.330	-.876 (-1.526)	.18
I. 1) LEE	.215	11.274***	.236	11.274***	.411 (3.504)***	.38
CTS					.412 (.807)	.10
2) LEE × CTS	.206	7.477***	.002	.147	-.201 (-.383)	-.05

* p<.05 **p<.01 ***p<.006 (Bonferroni Correction)

Note. LEE = perceived spousal intolerance/criticism. MPARQ = maternal rejection. FPARQ = paternal rejection. CTS = childhood physical abuse. R² = adjusted R square. F = F-value associated with adjusted R square: For all analyses, F(2, 75) for Step 1, and F(3, 75) for Step 2. ΔR² = change in R square. ΔF = F change. β = Standardized Beta weights for each variable, from the final step of the regression equations (representing the unique contribution of each variable). (t) = t-value associated with β. Part. Corr. = partial correlation for each variable, from the final step of the regression equations.

Tests of the Causal Path/Mediational Model

The AMOS statistical program was used to test the causal path model postulated above (see Figure 1), using maximum likelihood estimation methods. The primary focus of the estimation process is to yield parameter values such that the discrepancy (i.e., residual) between the hypothesized model's implied population covariance matrix and the covariance matrix of the sample is minimized. The chi-square (χ^2) statistic has been the measure traditionally used to judge the closeness of fit between these covariance matrices. The null hypothesis under the χ^2 test stipulates that the discrepancy between the two matrices is equivalent to zero, and the probability value associated with χ^2 represents the likelihood of obtaining a χ^2 value that exceeds the χ^2 value when the null hypothesis is true. In other words, the higher the probability value associated with χ^2 , the closer the fit between the hypothesized model and the perfect fit (Byrne, 1998). However, the χ^2 statistic's sensitivity to sample size and other problems of fit are well established (Byrne, 1994; 1998). Thus, additional indices were used in evaluating the closeness of fit of models in the analyses described below³. These included the Comparative Fit Index (CFI), the Expected Cross Validation Index (ECVI) and the Root Mean Square Error of Approximation (RMSEA).

The CFI was developed by Bentler (1990) as an improvement over the Normed Fit Index (NFI), which tended to underestimate fit in smaller samples. Thus, the CFI is corrected for sample size and ranges in value from zero to one. A CFI value $\geq .90$ is conventionally recognized as indicating an acceptable fit to the data, with higher values indicating increasingly better fit. Bentler (1990) suggested that the CFI should be considered the index of choice in evaluating model fit for all sample sizes.

³ In addition to these purely statistical criteria, the plausibility or meaningfulness of the model or of any modifications made to it were considered throughout the evaluations.

The ECVI (Browne & Cudeck, 1989) evaluates the likelihood that the model being assessed cross-validates across similar samples from the same population. Smaller ECVI values denote greater potential for model replication. However, given that ECVI coefficients can take on any value, no particular range of values has been specified as indicative of adequate fit. Rather, the ECVI for the model being tested is compared with that of the “independence model” and the “saturated model”. The independence model (also known as the null model) is essentially a highly restricted one which stipulates complete independence of (i.e., complete lack of correlation among) all the variables in the model. It therefore represents a lower-end, baseline level of (mis)fit which any realistic model is expected to exceed. By contrast, the saturated model is one in which the number of estimated parameters equals the number of data points, representing a perfect fit (Loehlin, 1992). The closer the ECVI value is to that of the saturated model, and the farther it is from that of the independence model, the greater the level of fit and the potential for model replication.

The RMSEA (Steiger & Lind, 1980) takes into account the error of approximation in the population. It should be noted that of all the indices described here, the RMSEA is most sensitive to sample size and to the level of complexity of the model (i.e., the number of estimated parameters in the model). Although guidelines are based on convention only, RMSEA values lower than .05 are generally considered to indicate a good fit, those between .05 and .10 are believed to represent reasonable errors of approximation in the population or a medium to mediocre fit, and those greater than .10 indicate a poor fit (Byrne, 1998).

Testing of the initially postulated model revealed a relatively poor degree of fit overall, with $\chi^2(8) = 93.041$, $p = .000$; CFI = .927; ECVI = 2.014 (Saturated model = .959;

Independence model = 16.642); RMSEA = .382. Although most of the hypothesized paths emerged as statistically significant, no paths stemming from Physical Abuse, and no paths to or from Spousal EE were significant.

Post hoc modifications to the initially postulated model were considered to bring goodness-of-fit estimates within more acceptable parameters. It is possible to appraise the extent to which a respecified model represents an improvement in fit compared to a previous model by evaluating the difference in χ^2 ($\Delta\chi^2$) between the two. This difference in χ^2 is distributed along the χ^2 -distribution, with degrees of freedom equal to the difference in degrees of freedom (Δdf) between the previous and respecified models. A significant $\Delta\chi^2$ therefore indicates a statistically significant improvement in the respecified model's goodness-of-fit. As an aid to the respecification of models, the AMOS program also provides "modification indices" which may be used where appropriate to identify paths and parameters not originally stipulated which would contribute to a significantly better fitting model if added.

Respecification of the initially postulated model took place in two stages. First, a respecified path model, omitting the variables (Physical Abuse and Spousal EE) which emerged as nonsignificant in the initial analyses⁴, resulted in a significant improvement in fit, with $\Delta\chi^2$ ($\Delta df = 4$) = 52.004, $p < .005$. Second, a path was added from Anxiety to Closeness, as indicated by the modification indices. This path was theoretically tenable, suggesting that fears of abandonment or of being unloved by the partner will contribute to difficulties experiencing closeness and trust in the marital relationship. Incorporating this parameter into the model resulted in a statistically

⁴ No alternative paths from either of these variables to any other variable in the model were suggested by the modification indices.

better fitting model, with $\Delta\chi^2$ ($\Delta df = 1$) = 36.549, $p < .005$. As no further significant improvements in model fit could be made, this was considered the final model.

Goodness-of-fit indices for the initially postulated and final models appear in Table 8. These results generally indicate a good to excellent degree of fit on all indices for the final causal path model, which is presented schematically in Figure 2. Standardized regression (Beta) weights appearing next to unidirectional path arrows indicate the level of association between variables as specified by that particular path. The Critical Ratio (parameter estimate divided by its standard error) for each of these weight coefficients appears in parentheses next to it, and functions as a z-statistic in judging whether the estimate is significantly different from zero. Thus, a Critical Ratio value greater than ± 1.96 represents statistical significance at the $\alpha = .05$ level.

The final model supported a number of the initial hypotheses. As predicted, significant paths emerged from the two self-reported attachment dimensions (Closeness and Anxiety) to self-reported Depressive Symptoms. Significant paths were also observed from reported Maternal Rejection to both attachment dimensions, as hypothesized. The postulated path from perceived Paternal Rejection to Depressive Symptoms was also supported. Moreover, as anticipated there was no support for paths stemming from Paternal Rejection to any of the adulthood relationship variables. Contrary to expectations, however, the postulated path from perceived Spousal EE to Depressive Symptoms was not supported by the data. Additionally, none of the hypothesized paths from self-reported childhood Physical Abuse to other variables emerged as significant.

Additional Analyses: Tests of Alternative Path Models

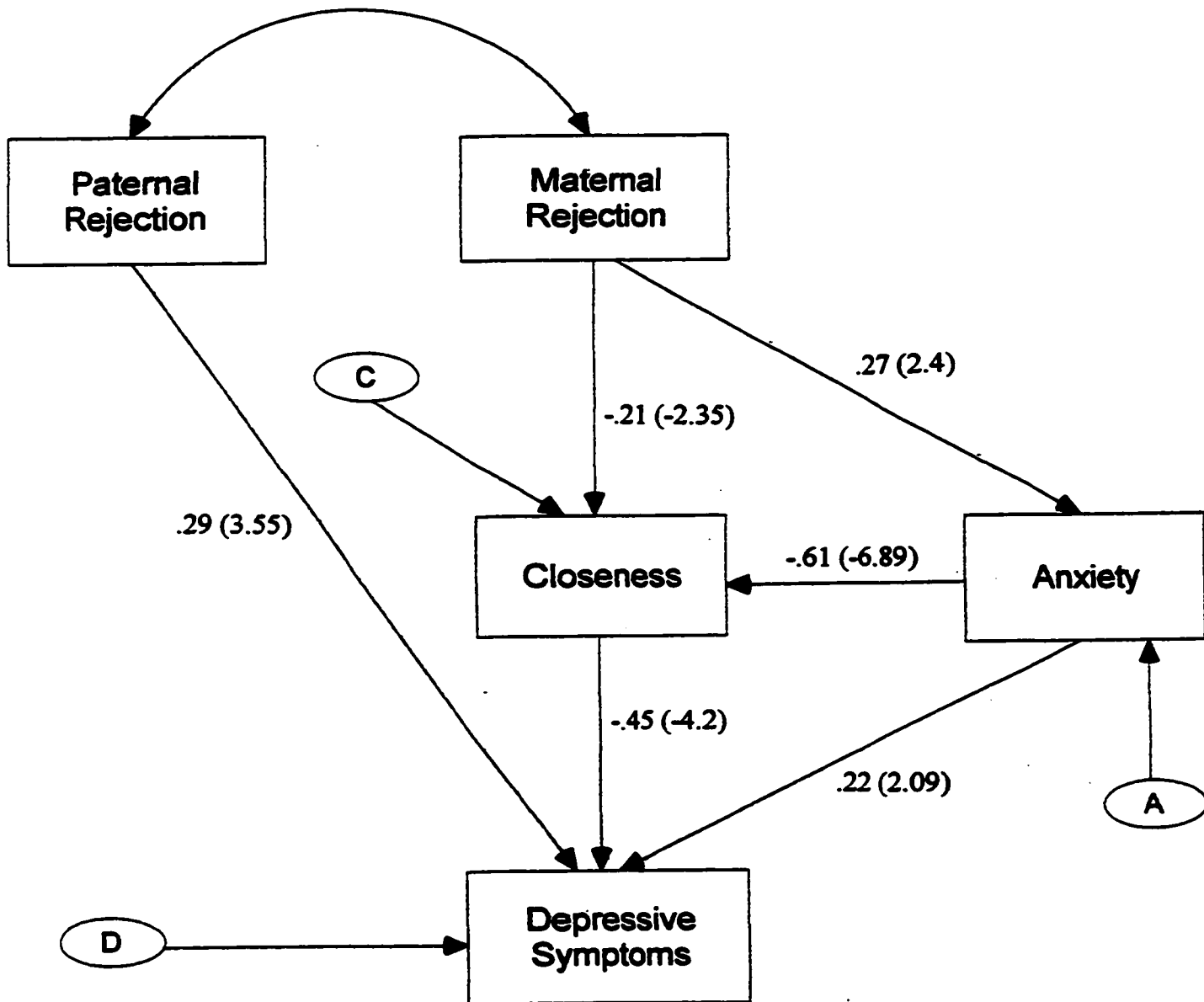
Given the correlational nature of the current study, path analysis procedures were also used to test three reasonable alternative explanations of the data. These secondary analyses were

Table 8
Goodness-of-fit Statistics for Initially Postulated and Final Path Models

	Postulated Model	Final Model
χ^2	93.041	4.488
df	8	3
Probability Value	.000	.213
CFI	.927	.998
ECVI		
Model Tested	2.014	0.527
Saturated Model	0.959	0.548
Independence Model	16.642	10.014
RMSEA		
Model Tested	0.382	0.082
Independence Model	0.758	0.882

Note. χ^2 = chi-square. CFI = Comparative Fit Index. ECVI = Expected Cross Validation Index.
 RMSEA = Root Mean Square Error of Approximation

Figure 2
Final Path Model



Note. Parameter estimates are Standardized (Beta) Regression Weights and are significant at $p < .05$. Values in parentheses are "Critical Ratios" or z-statistics. Depressive Symptoms = BDI. Maternal Rejection = MPARQ. Paternal Rejection = FPARQ. Closeness = RAAS Closedep. Anxiety = RAAS Anxious. D = error term associated with Depressive Symptoms; A = error term associated with Anxiety; C = error term associated with Closeness.

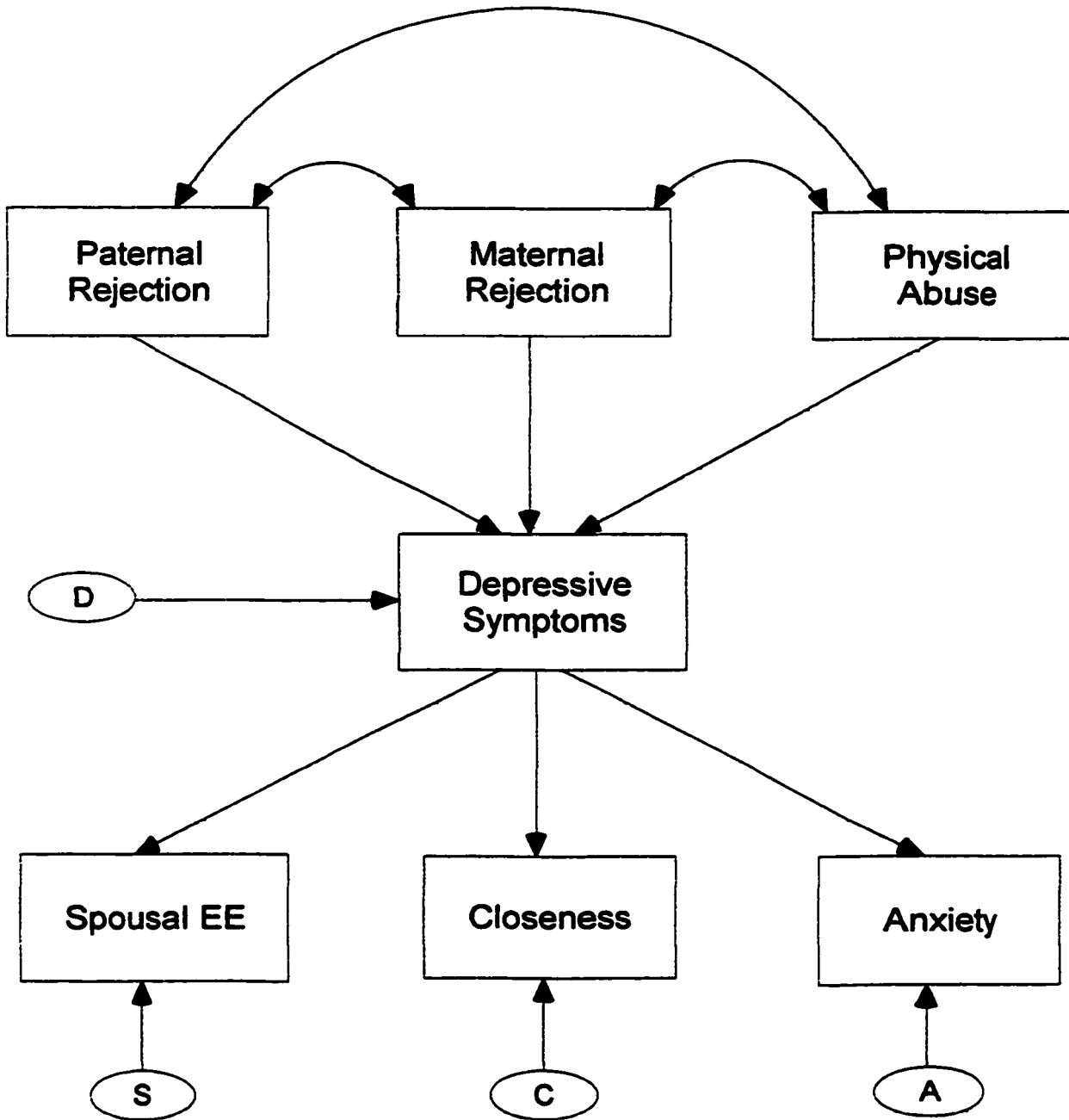
intended simply as a way to examine the plausibility of the main model. A number of possible alternative models were first generated using various combinations between the self-reported childhood, adulthood, and dependent variables. Each of these models were then evaluated for their theoretical plausibility and meaningfulness, and three of them were selected as tenable. To simplify discussion of these path models, the original model tested above shall be denoted as Model 1, and the three alternative path models shall be denoted as Models 2, 3 and 4. The alternative models are described and evaluated below. Goodness-of-fit indices for the final versions of models 1 through 4 appear in Table 9 for ease of comparison.

Model 2

Model 2 essentially postulated that negative childhood experiences adversely affect the quality of the adulthood relationship with the spouse, and that this deleterious impact is mediated by depressive symptoms. A path diagram representation of the hypothesized model appears in Figure 3. In this model, Maternal Rejection, Paternal Rejection, and childhood Physical Abuse all influence adult Depressive Symptoms directly, rather than being mediated by adulthood relational variables as in Model 1. Similarly, rather than being seen as a causal influence on Depressive Symptoms (as in Model 1), relational difficulties are hypothesized to be caused or influenced by depressive symptomatology. Thus, Model 2 stipulates that Depressive Symptoms will lead to self-reported difficulties with closeness and trust/dependency in the relationship (Closeness), fears of abandonment and unloveableness (Anxiety), and perceiving the spouse as critical and intolerant (Spousal EE).

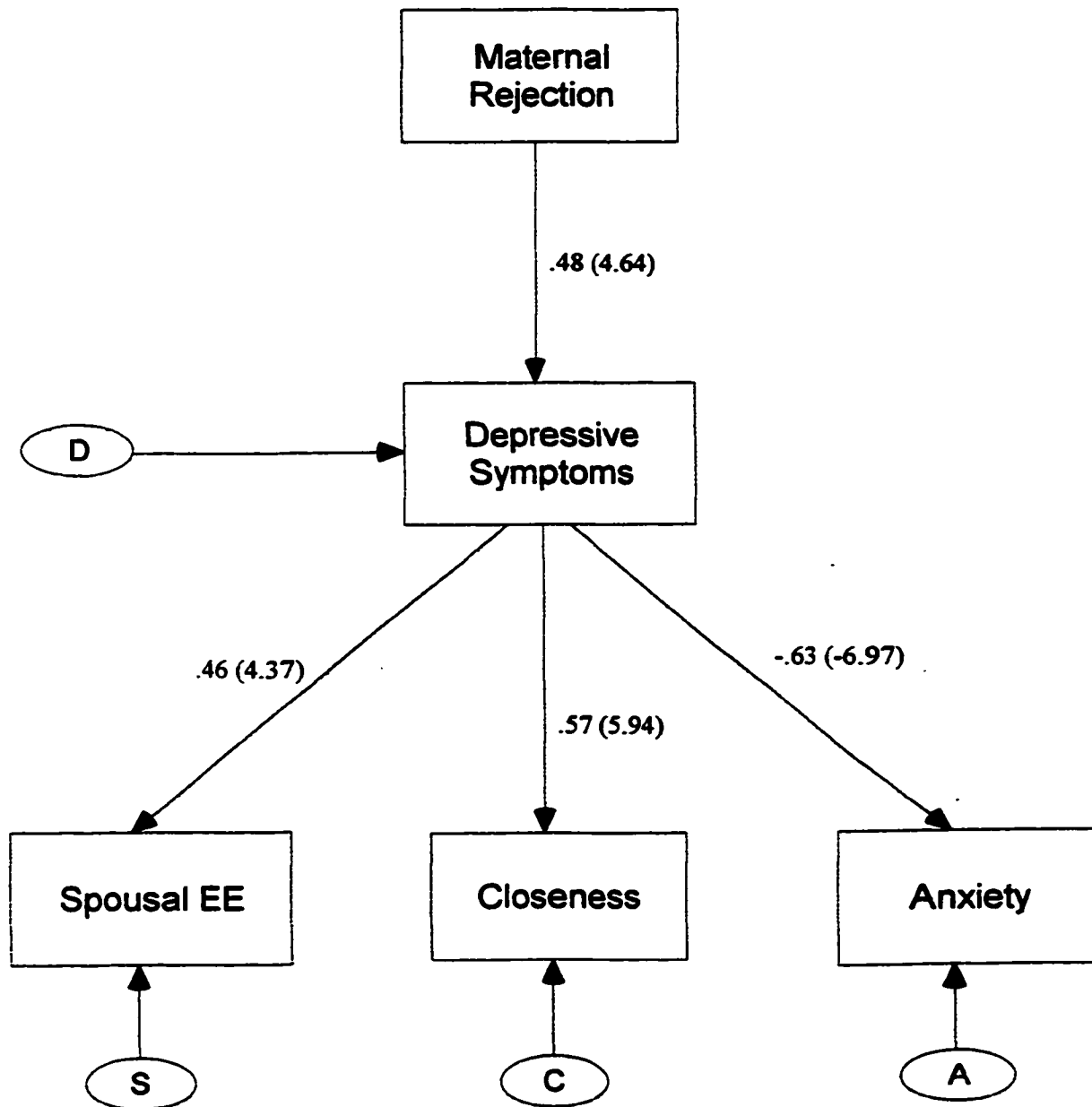
Testing of Model 2 revealed a poor overall level of fit, with $\chi^2 (12) = 66.627$, $p = .000$; CFI = .953; ECVI = 2.014 (Saturated model = .959; Independence model = 16.642); and

Figure 3
 "Model 2" Alternative
 Postulated Path Model



Note. Depressive Symptoms = BDI. Maternal Rejection = MPARQ. Paternal Rejection = FPARQ. Physical Abuse = CTS. Closeness = RAAS Closedep. Anxiety = RAAS Anxious. Spousal EE = LEE. D = error term associated with Depressive Symptoms; A = error term associated with Anxiety; C = error term associated with Closeness; S = error term associated with Spousal EE.

Figure 4
 "Model 2" - Final Path Model



Note. Parameter estimates are Standardized (Beta) Regression Weights and are significant at $p < .05$. Values in parentheses are "Critical Ratios" or z-statistics. Depressive Symptoms = BDI. Maternal Rejection = MPARQ. Closeness = RAAS Closedep. Anxiety = RAAS Anxious. Spousal EE = LEE. D = error term associated with Depressive Symptoms; A = error term associated with Anxiety; C = error term associated with Closeness; S = error term for Spousal EE.

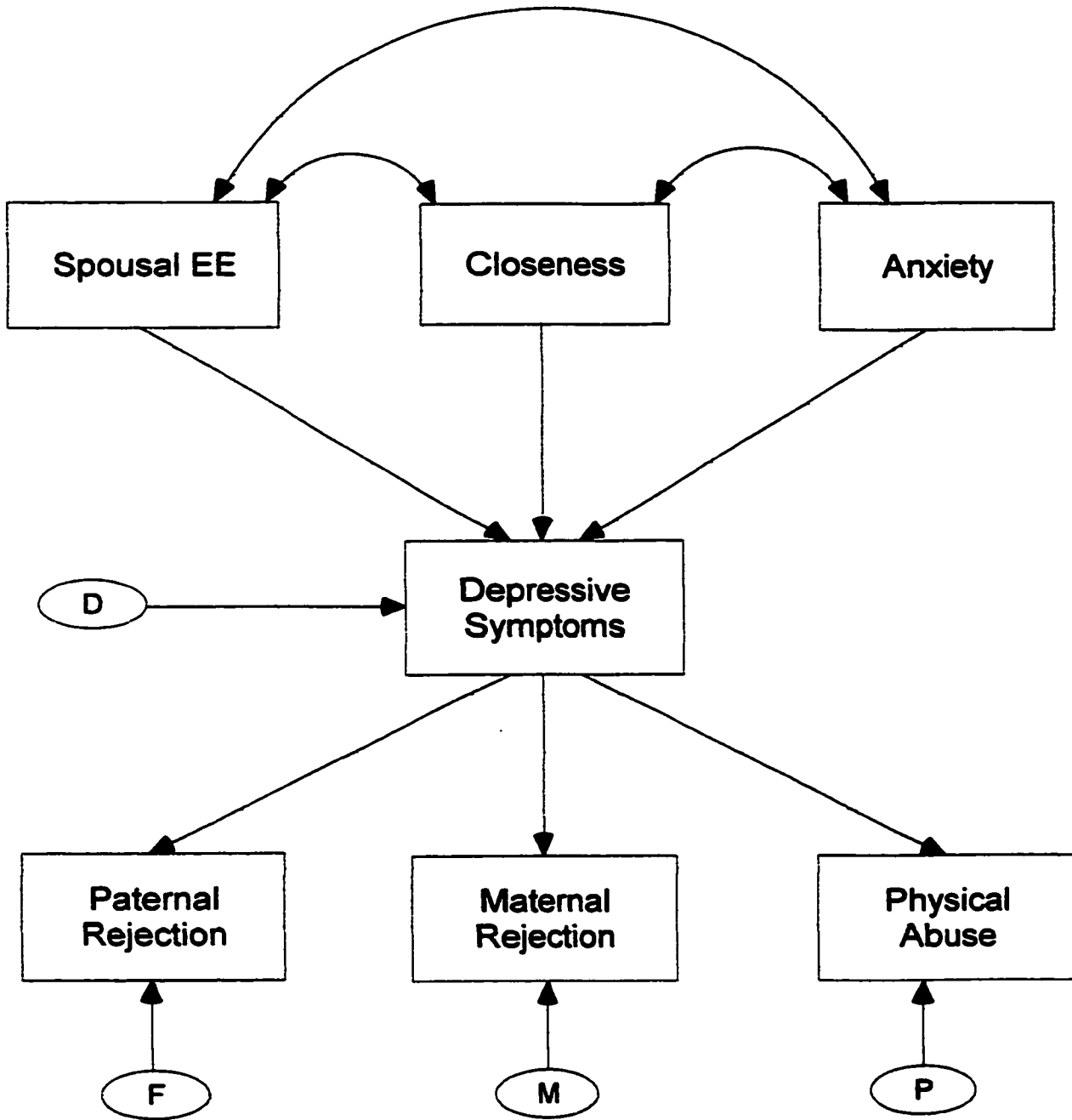
RMSEA = .250. Although most of the hypothesized paths emerged as statistically significant, paths from self-reported Paternal Rejection and Physical Abuse were nonsignificant. Re-analyzing the model without these nonsignificant variables yielded a slight and statistically nonsignificant improvement in overall fit, and no further improvements could be made to the model from additional specification of paths. Goodness-of-fit indices for this final version of Model 2 appear in Table 9, and indicate a poor degree of fit for the model overall. The final version of Model 2 is presented schematically in Figure 4.

Model 3

Model 3, represented schematically in Figure 5, fundamentally hypothesized that marital difficulties result in Depressive Symptoms, which in turn influence the recall of negative childhood events. Like Model 1, Model 3 stated that difficulties in establishing intimacy and closeness with the spouse (Closeness), as well as fears of abandonment and of being unloved by the spouse (Anxiety) and perceiving the spouse as intolerant and critical (Spousal EE) will result in Depressive Symptoms. However, Model 3 also states that, rather than being caused by negative childhood events, Depressive Symptoms negatively cloud the recall of self-reported childhood events. In other words, the model posits a retrospective bias such that recall varies as a function of symptom intensity. For example, higher levels of depressive symptomatology should therefore result in remembering the mother and father as more rejecting, and recalling higher frequencies of physical abuse in childhood.

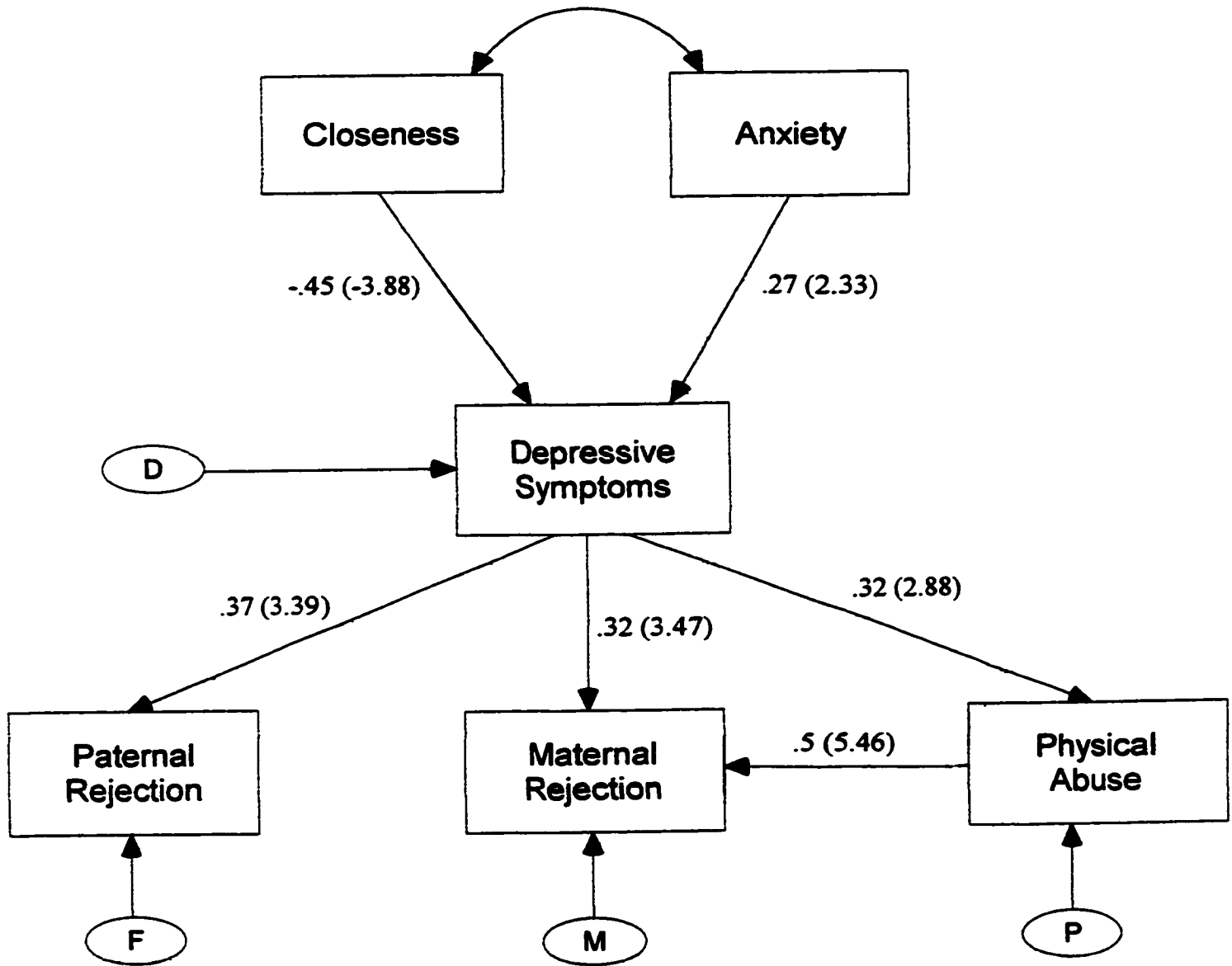
Initial testing of Model 3 revealed a poor level of overall fit, with $\chi^2 (12) = 46.434$, $p = .000$; CFI = .971; ECVI = 1.266 (Saturated model = .959; Independence model = 16.642); and RMSEA = .250. All the hypothesized paths save one (from self-reported Spousal EE to

Figure 5
 "Model 3" Alternative
 Postulated Path Model



Note. Depressive Symptoms = BDI. Maternal Rejection = MPARQ. Paternal Rejection = FPARQ. Physical Abuse = CTS. Closeness = RAAS Closedep. Anxiety = RAAS Anxious. Spousal EE = LEE. D = error term associated with Depressive Symptoms; F = error term associated with Paternal Rejection; M = error term associated with Maternal Rejection; P = error term associated with Physical Abuse.

Figure 6
 "Model 3" - Final Path Model



Note. Parameter estimates are Standardized (Beta) Regression Weights and are significant at $p < .05$. Values in parentheses are "Critical Ratios" or z-statistics. Depressive Symptoms = BDI. Maternal Rejection = MPARQ. Paternal Rejection = FPARQ. Physical Abuse = CTS. Closeness = RAAS Closedep. Anxiety = RAAS Anxious. D = error term associated with Depressive Symptoms; M = error term associated with Maternal Rejection; F = error term associated with Paternal Rejection; P = error term for Physical Abuse.

Depressive Symptoms) emerged as significant, although omitting this variable from the model did not result in a significant improvement in overall fit. A path from self-reported Physical Abuse to self-reported Maternal Rejection, suggested by the modification indices, was then added, yielding a statistically better fitting model, with $\Delta\chi^2 (\Delta df = 1) = 25.025, p < .005$. As no further significant improvements in model fit could be made, this was considered the final model. As shown in Table 9, goodness-of-fit indices for Model 3 and indicate a poor to moderate level of overall fit for the model. The final version of Model 3 is presented schematically in Figure 6.

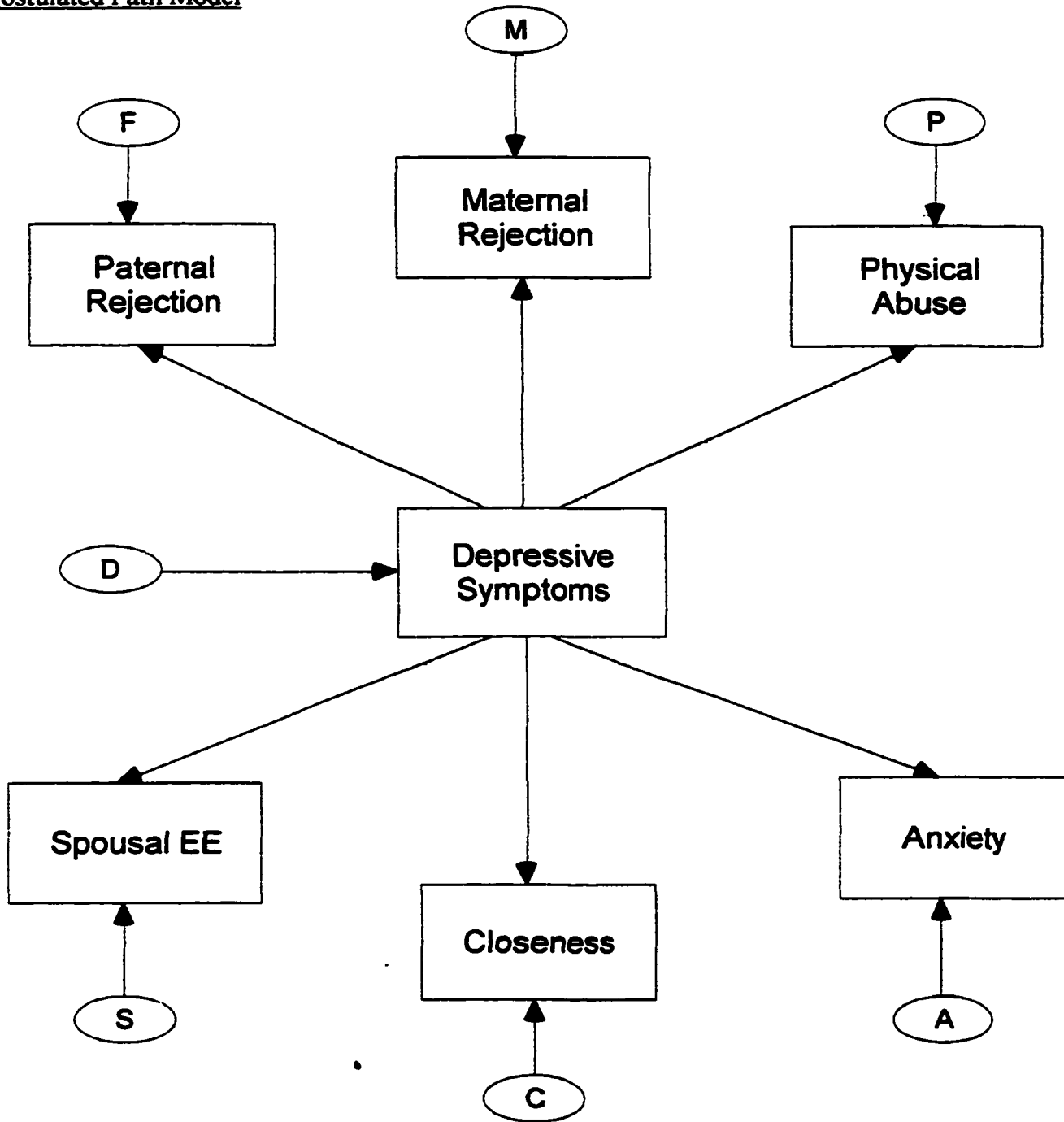
Model 4

Model 4, represented schematically in Figure 7, assumed that the causal inputs for depressive symptomatology are unmeasured. It therefore postulated that Depressive Symptoms contribute both to relational difficulties and to recalling childhood events as negative.

Specifically, the model hypothesized that Depressive Symptoms contribute to difficulties with feeling close to and depending on the spouse (Closeness), fears of being abandoned and unloved by them (Anxiety) and feeling criticized and unloved by them (Spousal EE). Moreover, Depressive Symptoms also distort the recall of childhood events as more negative, resulting in remembering both parents as more rejecting and recalling greater amounts of Physical Abuse.

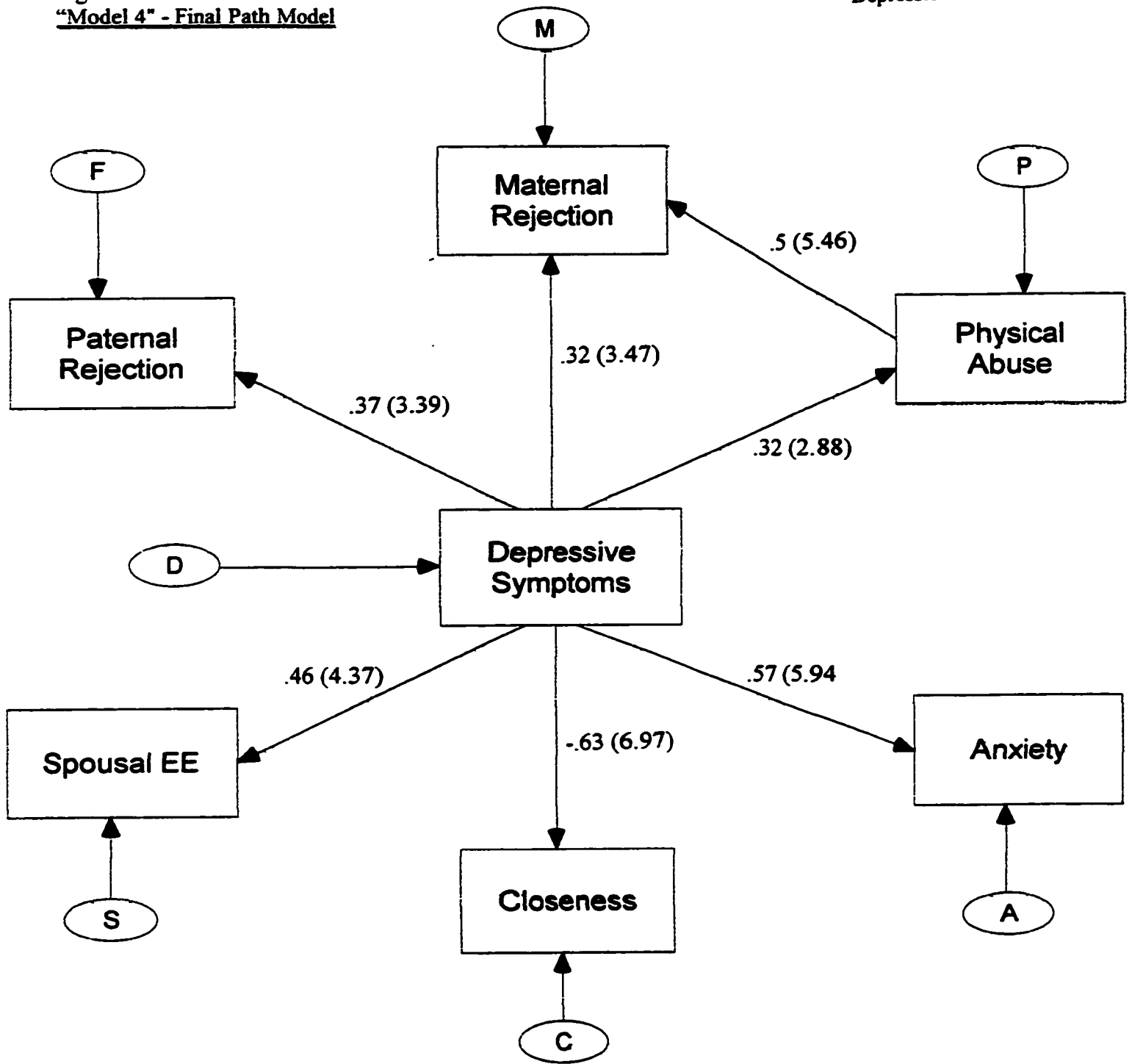
Testing of Model 4 initially revealed goodness-of-fit indices as follows: $\chi^2 (15) = 104.463, p = .000; CFI = .924; ECVI = 1.979$ (Saturated model = .959; Independence model = 16.642); and $RMSEA = .286$. All the hypothesized paths were statistically significant. Examination of the modification indices suggested that specifying an additional path from self-reported Physical Abuse to self-reported Maternal Rejection could result in improved fit. Incorporating this parameter into the model resulted in a statistically better fitting model overall, with $\Delta\chi^2 (\Delta df = 1)$

Figure 7
"Model 4" Alternative
Postulated Path Model



Note. Depressive Symptoms = BDI. Maternal Rejection = MPARQ. Paternal Rejection = FPARQ. Physical Abuse = CTS. Closeness = RAAS Closedep. Anxiety = RAAS Anxious. Spousal EE = LEE. D = error term associated with Depressive Symptoms; M = error term associated with Maternal Rejection; F = error term associated with Paternal Rejection; P = error term associated with Physical Abuse; A = error term associated with Anxiety; C = error term associated with Closeness; S = error term for Spousal EE.

Figure 8
 "Model 4" - Final Path Model



Note. Parameter estimates are Standardized (Beta) Regression Weights and are significant at $p < .05$. Values in parentheses are "Critical Ratios" or z-statistics. Depressive Symptoms = BDI. Maternal Rejection = MPARQ. Paternal Rejection = FPARQ. Physical Abuse = CTS. Closeness = RAAS Closedep. Anxiety = RAAS Anxious. Spousal EE = LEE. M = error term associated with Maternal Rejection; F = error term associated with Paternal Rejection; P = error term associated with Physical Abuse; A = error term associated with Anxiety; C = error term associated with Closeness; S = error term for Spousal EE.

Table 9
Goodness-of-fit Statistics for Model 1 (Final Main Model) and Final Alternative Path Models

	Model 1	Model 2	Model 3	Model 4
χ^2	4.488	59.036	19.891	79.438
df	3	6	8	14
Probability Value	0.213	0.000	0.011	0.000
CFI	0.998	0.943	.987	.944
ECVI				
Model Tested	0.527	1.192	0.793	1.664
Saturated Model	0.548	0.548	0.740	0.959
Independence Model	10.014	13.090	12.774	16.642
RMSEA				
Model Tested	0.082	0.348	0.143	0.253
Independence Model	0.882	0.922	0.766	0.758

Note. χ^2 = chi-square. CFI = Comparative Fit Index. ECVI = Expected Cross Validation Index.
 RMSEA = Root Mean Square Error of Approximation

= 25.025, $p < .005$. Given that no further significant improvements in model fit could be made beyond this, this was considered the final model. The final version of Model 4 is presented schematically in Figure 8. As shown in Table 9, final goodness-of-fit indices for Model 4 suggest a poor degree of overall fit for the model.

Comparing the Models

As shown in Table 9 on the previous page, the different models showed varying degrees of overall fit to the data. It may not be appropriate to make comparisons across theoretically different models on these criteria, let alone the possibility of testing for statistical significance between their goodness-of-fit indices. Nonetheless, a number of observations regarding the differences among models may be made. The results favor Model 1 over the other models. Of all the models, Model 1 was the only one to demonstrate an adequate level of fit on all four criteria. Moreover, all fit indices were highest for Model 1 compared to all the other models. It is also important to note that Model 1 was the only model with an RMSEA index within conventionally acceptable limits. With regard to χ^2 , non-zero probabilities occurred only on Models 1 and 3. Both these models also had particularly high CFI indices, almost approaching 1.00 in the case of Model 1. Although the ECVI indices suggested that all models had at least a moderate likelihood of being cross-validated across similar samples from the same population, the indices for Models 1 and 3 were particularly high. Thus, in absolute terms, only Model 1 demonstrated an excellent fit to the data overall.

Discussion

A primary goal of this study was to assess competing moderating and mediating hypotheses about the relationships among childhood experiences, the quality of the marital

relationship in adulthood, and depressive symptomatology. Additionally, the study sought to extend the research literature by studying these variables as they apply specifically to a community sample of men.

The moderating hypotheses stated that the adulthood relationship variables would interact with the childhood variables to either increase or decrease depressive symptomatology in an exponential fashion. The absence of statistically significant findings for the moderating analyses is likely due to the high correlations which emerged between self-reported depressive symptoms and both the childhood and adulthood sets of self-reported variables. Moderating effects typically occur when there is a non-significant overall association between the moderator variable and the criterion variable (Baron & Kenny, 1986). Given that all of the independent variables were significantly and at least moderately correlated with the criterion variable (i.e., depressive symptoms), the likelihood of a statistically significant interaction occurring was low.

Thus, none of the moderating hypotheses of the study were supported. Although both negative childhood and marital variables were significantly predictive of depressive symptomatology on their own, there was no evidence that they interacted with one another to exponentially augment the severity of depressive symptoms. In other words, the data failed to support the notion that childhood events heighten or attenuate the impact of the marital relationship on depressive symptoms, or vice versa. It is possible that neither the childhood nor marital variables represented stressors which could precipitate men into depression. Rather, both sets of variables may function simply as risk factors for depression, and not as stressors or precipitating factors. In other words, the data did not support a diathesis-stress model of psychopathology, in which marital stressors elicit or precipitate the onset of depressive symptoms

in individuals with childhood predispositions. It is nonetheless possible that both childhood difficulties and marital stress potentiate the effects of other environmental stressors not measured in the present study. In light of this, it may be beneficial for future research to reconsider a moderating model incorporating other variables which could represent precipitating factors for depression. A possible candidate for such a variable is the general construct of “environmental adversity”, including life events such as divorce or job loss, and chronic problems such as poverty (Wing & Bebbington, 1985). Although life stress inventories cannot cover all potential life events or forms of adversity, they are an economical way of assessing levels of environmental adversity (Wing & Bebbington, 1985)

In contrast, the data supported a number of the hypotheses regarding mediating relationships among the variables under study. Before describing these and the findings of the final path model, it should be noted that the data supported all of the hypotheses regarding zero-order effects of the self-report variables under study. Each independent variable was significantly associated with self-reported depressive symptomatology, in the expected direction consistent with the research literature. However, when the shared variance among the variables was considered in the path model, a new picture regarding the relationships among these variables emerged. The childhood variables which emerged as significant in the model will be discussed first, followed by the adulthood variables and those variables which fell out of the path analysis.

The data were consistent with the hypothesis that the quality of men’s relationships with their mothers in childhood is linked to their levels of depressive symptomatology in adulthood. Both at the level of the zero-order correlations and in the path model, experiencing the mother as rejecting, hostile, critical and indifferent during childhood was associated with higher levels of

self-reported depressive symptoms later in life. These findings are congruent with those of previous research suggesting that parental warmth and acceptance is a crucial factor in healthy emotional development, and that parental rejection may be an important contributor to psychopathology (Asarnow et al., 1993; Crook et al., 1981; Downey et al., 1996; Lefkowitz & Tesiny, 1984; Rapee, 1997; Rohner, 1976; 1986; 1998; Whitbeck et al., 1992). The path model also supported the hypothesis that the link between the mother-son relationship and adult depressive symptoms is mediated by the perceived quality of the adult marital relationship. Specifically, the data suggested that for men, feeling rejected by the mother in childhood is associated with later fears of being unloved and/or abandoned by the spouse, and to self-reported difficulties in developing closeness, intimacy and trust with the spouse. In turn, these self-reported attachment difficulties are associated with depressive symptoms.

These findings have important implications for the literature on the continuity of attachment organization. Although Bowlby (1980) did not believe that attachment organization was permanently set in childhood, he did suggest that there is a strong pull for attachment continuity throughout the lifespan, and that early parent-child relationships serve as prototypes of later romantic relationships. The research literature to date has yielded variable results regarding this issue. One review of the literature concluded that consistent difficulties in social relationships tend to occur only in cases where relationships with childhood caregivers were highly problematic (Parker et al., 1992). However, there is also evidence that parent-child relationships influence children's later attachment organization. For example, Hazan and Shaver (1987) found that securely attached adults tended to report warm relationships with their parents, while insecurely attached adults reported being rejected by them. Thus, ambiguity remains about whether

childhood experiences create relatively unalterable working models which influence attachment organization throughout life, or whether attachment is more strongly determined by the individual's current primary relationship.

Even if the quality of the current relationship does exert the greatest direct influence on adult attachment, it is possible that individuals' original working models lead them to select and create interpersonal environments which promote continuity of attachment patterns throughout the lifespan. Consistent with this notion, there is evidence to suggest that individuals gravitate toward relationships with partners who confirm their beliefs and expectations about attachment relationships (Brennan & Shaver, 1995; Collins and Read, 1990; Frazier, Byer, Fischer, Wright & Debord, 1996). For example, Collins and Read (1990) obtained evidence for partner matching on attachment style dimensions. They found that individuals tend to have relationships with partners who hold similar beliefs and feelings about closeness, intimacy, and the dependability of others. In a similar vein, the internal working models of attachment that individuals hold prior to entering an intimate relationship may affect the development of the relationship. Collins (1996), for example, found that securely attached participants made more positive attributions about a hypothetical partner's ambiguous behavior in an imaginary scenario. In contrast, anxiously attached participants inferred more hostile or rejecting intentions from their hypothetical partners' imagined ambiguous behavior. It is possible to see how, over time, such positive or negative attributional processes could result in self-fulfilling prophecies by pulling for behaviours congruent with pre-existing expectations.

The above findings are in keeping with research on relationship variables other than attachment which suggests that people's relationships tend to complement aspects of their

personality. In particular, studies by Swann and his colleagues (Swann & Read, 1981a, 1981b; Swann, Wenzlaff, Krull & Pelham, 1992) suggested that individuals are motivated to seek feedback from others which confirms their perceptions of themselves. More importantly, there is evidence that individuals choose partners whose view of them is consistent with and confirms their own self-views (Swann, Hixon, & De La Ronde, 1992; Swann, Wenzlaff, Krull & Pelham, 1992), and that they tend to feel more intimate with partners whose evaluations of them verify their self-views (Swann, De La Ronde & Hixon, 1994). It is noteworthy that this tendency toward self-verification seems to occur independently of whether self-views are positive or negative. Thus, individuals with unfavorable self-views tend to seek negative appraisals, and are drawn to others who provide them with negative feedback about themselves (Swann, Hixon, & De La Ronde, 1992; Swann, Wenzlaff, Krull & Pelham, 1992). Other research has found that individuals also tend to be attracted to others whose personality, attitudes and demographic characteristics are similar to their own (Buss & Barnes, 1986; Byrne, 1971). These findings are congruent with the notion that attachment representations acquired via parent-child interactions in childhood may be implicated in the re-creation of similar attachment relationships across the lifespan.

These findings do not imply that a positive interpersonal relationship in adulthood cannot reorganize attachment in the direction of enhanced security in relationships. For a man with a predisposition toward insecure attachment related to childhood rejection, meeting and developing a relationship with a warm, secure and accepting partner could lead to a representational change in the working model of attachment. However, the findings suggest that the probability of such a corrective interpersonal relationship occurring may be low, perhaps due to the selective factors

described above. Thus, the final path model is consistent with the notion that feeling rejected by the mother in childhood tends to be associated with self-reported attachment difficulties later in life, and that these difficulties, in turn, may contribute to higher levels of self-reported depressive symptoms.

With respect to the father-son relationship, the data were congruent with the hypothesis that the quality of men's relationships with their fathers in childhood would be directly linked to their level of depressive symptomatology in adulthood. Specifically, the final path model suggests that perceiving the father as rejecting, critical, indifferent and hostile during childhood is associated with higher levels of self-reported depressive symptoms later in life. As was the case with the mother-son relationship, these findings are in keeping with those of previous research which links parental acceptance-rejection in childhood to later emotional functioning (Crook et al., 1981; Downey et al., 1996; Lefkowitz & Tesiny, 1984; Rapee, 1997; Rohner, 1976; 1986; 1998). Although comparatively little empirical research has been conducted on the role that fathers specifically play in the development of psychopathology (Phares & Compas, 1992), these findings lend credence to the tenets of a substantial clinical literature suggesting that men's childhood relationships with their fathers are of great importance for understanding their emotional functioning as adults (Corneau, 1991; Pittman, 1993; Real, 1997; Rohner, 1998; Rohner & Nielsen, 1978).

However, in contrast to the childhood relationship with the mother, there was no evidence from the final path model that the association between the self-reported father-son relationship and adult depressive symptomatology is mediated by the perceived quality of the marital relationship. Rather, perceptions of childhood rejection by the father were linked directly to adult

depressive symptomatology, suggesting that being rejected by the father could be depressing of itself. Alternatively, it is possible that another variable, not examined in the study, mediates this relationship. A number of candidates for such a mediator may be drawn from the literature. Perfectionism, for example, is a personality trait that is linked to depression (Hewitt & Flett, 1991). It is possible that rejection by the father contributes to the internalization of excessively high standards in an attempt to gain acceptance from him, resulting in an ultimately depressogenic tendency toward perfectionism. Similarly, Blatt (Blatt, 1974; Blatt & Zuroff, 1992) proposed links between parental rejection in childhood and later self-criticism. A number of authors have also suggested that, for men, fathers' support or criticism may be especially important in the development of self-esteem versus self-hatred (Comeau, 1991; Pittman, 1993; Real, 1997), which in turn may predispose depression. Future research should attempt to identify variables that may mediate the link between rejection by the father in childhood and later depressive symptomatology.

The above findings are also consistent with the notion that the relationship between perceived parental rejection in childhood and adulthood variables may partly depend on the gender of the rejecting parent. Although maternal rejection was associated with both self-reported marital difficulties and depressive symptoms, rejection by the father was only associated with the latter. One possible explanation for this difference is that the influence of the parent-child relationship follows asymmetrical gender patterns for certain outcomes. In other words, it is possible that being rejected by the same-sex parent may have consequences for different domains of functioning than being rejected by the opposite-sex parent. Attachment theory postulates that the parent-child relationship serves as a model for later romantic relationships. If so, the

relationship with the opposite-sex parent may be a particularly important model for later heterosexual relations. Although relatively little has been reported on the differential effects of the same-sex versus opposite-sex parent on children (Conte, Plutchik, Picard, Buck & Karasu, 1996), there is some evidence supporting this supposition. Collins and Read (1990) found similarities between the attachment style dimensions of subjects' partners and the care-giving style of the subjects' parents. Consistent with the findings of the present study, this similarity was most pronounced for subjects' opposite-sex parent (Collins & Read, 1990). These findings suggest that the boyhood relationship with the mother may predispose men to develop similar attachment patterns in adulthood.

With regard to the adult variables under study, the data were consistent with the hypothesis that the nature of men's attachment to their spouse is directly linked to their levels of adult depressive symptomatology. First, the findings suggested that, for men, the ability to establish a safe emotional bond with their partners is associated with lower levels of depressive symptoms. Specifically, the data lent support to the notion that feeling able to trust and depend on the spouse, and feeling comfortable being close and intimate with them, may contribute to fewer depressive symptoms among men. These findings buttress a central tenet of attachment theory, that the ability to form secure bonds with others is an integral part of healthy adult functioning and may protect against the depressogenic impact of stressful experiences (Bowlby, 1980; Cummings & Cicchetti, 1990). They are also consistent with studies which have found that adults who describe themselves as securely attached tend to have higher self-esteem and to be considered better adjusted by their peers (Bartholomew & Horowitz, 1991; Collins & Read, 1990), and that having a supportive relationship with an intimate partner may be an important

protective factor in depression (Coyne, Schwoeri, & Downey, 1993).

Similarly, the results indicated that feeling insecurely attached to the spouse is positively associated with self-reported depressive symptomatology. The findings supported the hypothesis that for men, avoidance of closeness, intimacy and trust in the primary attachment relationship is linked to higher levels of depressive symptoms. Similarly, the data are consistent with the notion that having pronounced fears about being unloved or abandoned by the partner is associated with more depressive symptoms. These findings support the links postulated by attachment theory between attachment difficulties and depression (Bowlby, 1980), as well as a body of research evidence which suggests that adults with a variety of psychological disorders, including depression, are more likely to be insecurely attached (Carnelley et al., 1994; Cole-Detke & Kobak, 1996; Hammen et al., 1995; Pettem, West, Mahoney, & Keller, 1993; Whiffen et al., in press). They are also consistent with studies that have linked depression and depressive symptoms to general difficulties in the marital relationship (Beach et al., 1990; Coyne, Schwoeri, & Downey, 1993; Gotlib & Hooley, 1988).

The findings imply that for men, a pattern of attachment characterized by avoidance of closeness in the primary relationship, and by marked anxieties about the reliability and responsiveness of the primary attachment figure, may be particularly linked to depressive symptomatology. It is important to note that this pattern resembles the fearful-avoidant attachment style described by Bartholomew (1990; Bartholomew & Horowitz, 1991). This is significant given previous reports that depressed individuals are more likely to describe themselves as preoccupied or fearful-avoidant in their attachment style (Carnelley et al., 1994; Hammen et al., 1995; Whiffen et al., in press). Thus, the findings support the notion that an individual who

simultaneously fears being unloved or abandoned by his partner, and who is unable to feel close to and depend on them, is at greatest risk for developing depressive symptoms.

Although a direct path from the Anxiety dimension of attachment to the Closeness dimension was not postulated in the initial path model, the modification indices suggested that adding such a path would contribute to a better fit of the model to the data. One possible interpretation of this path is that men who feel emotionally unsafe in their relationships avoid closeness with and dependency on their partner as a self-protective strategy. This is consistent with previous conceptualizations of the fearful-avoidant style of attachment organization. Although fearful individuals feel a need for closeness to the attachment figure, they avoid intimate contact in relationships because they fear rejection or distrust others (Bartholomew, 1990; Bartholomew & Horowitz, 1991). Thus, these individuals may simultaneously long for closeness with a partner, but anticipate that they will be rejected and withdraw in turn (Whiffen et al., in press).

Contrary to expectations, the path analysis did not support any links between self-reported childhood physical abuse or perceived spousal expressed emotion, and any of the other variables in the model. Both of these variables were significantly correlated with self-reported depressive symptoms. However, when considered in conjunction with the other variables in the model, their contributions were rendered statistically nonsignificant. In terms of the childhood variables, this suggests that being physically abused in childhood is not predictive of reported adult depressive symptomatology or adult attachment, above and beyond variance shared with parental rejection. This supports the suggestion that physical abuse may be conceptually similar to parental rejection, and that it is experienced by the child as an extension of more global parental maltreatment

(Rohner, 1976; Rohner, Bourque, & Elordi, 1996). With regard to self-reported spousal EE, the nonsignificant results suggest that perceiving one's spouse as intolerant and critical does not contribute to explaining the variance in depressive symptoms, above and beyond the contribution of insecure attachment. These findings are noteworthy given the importance ascribed to EE in predicting depressive relapse in the literature (Hooley et al., 1986; Vaughn & Leff, 1976b). One possible reason that spousal EE has been linked to depressive symptomatology may be that it tends to co-occur with attachment difficulties, such as fears of abandonment. In other words, it is possible that the association between depressive symptoms and spousal EE is better explained by the construct of attachment insecurity.

In more general terms, this study has important implications for how we perceive the psychology of men. The findings are consistent with the view that, contrary to cultural stereotypes, men's emotional functioning is very much intertwined with the quality of their interpersonal relationships. With regard to adult relationships, this is important given the tendency in the literature to explain the gender difference in depression in terms of women's greater investment in intimate relationships. In contrast to this view, the findings of the present study underscore the view that adult attachment needs are universally important, and that their emotional impact transcends gender. The findings suggest that the marital relationship is a significant factor for understanding men's psychological dysphoria. In terms of childhood relationships, the findings highlight the importance of acceptance by significant others in the healthy development of boys. They also emphasize men's sensitivity to boyhood rejection despite a cultural emphasis on emotional toughness (Cochran & Rabinowitz, 2000; Levant, 1996; Real, 1997). Both sets of implications support a vast literature suggesting that much of an individual's

psychological state is a reflection of how they feel in relation to others. The findings of the present study thus accentuate the need to explore men's interpersonal worlds in attempting to understand their emotional functioning.

Limitations of the Present Study

Although the present study extended the literature in a number of ways, it also suffered a number of methodological limitations. First, the study exclusively utilized self-report measures of the constructs under examination, and would have been improved by alternative, more objective forms of assessment. With regard to assessment of the dependent variable, the present study employed a well-established self-report measure of depressive symptomatology, the BDI. However, high scores on such instruments are not necessarily equivalent to a diagnosis of major depression (Coyne, 1994; Coyne & Whiffen, 1995; Gotlib & Whiffen, 1991). Although such high scores do reflect substantial distress, they do not always signify that all essential criteria for clinical depression are met (Coyne, 1994; Myers & Weissman, 1980). As mentioned earlier, to make determinations regarding clinical depression, researchers must use lengthier and more comprehensive diagnostic interviews, such as the Structured Clinical Interview for DSM-IV (SCID-IV; First, Spitzer et al., 1995). Thus, although the results of the present study revealed important relationships between certain childhood and adulthood experiences and depressive symptoms, it is unclear to what extent the results are generalizable to clinical depression. Future research should attempt to replicate the findings of this study in a clinical sample of depressed men. Related to this, although it was felt that BDI scores were distributed in such a way as to permit testing of the hypotheses (e.g., sufficient range of scores), having a more distressed sample would have lent credence to the present findings as they pertain to dysphoria in men. It follows

that replicating the present results with clinically depressed men would render the conclusions of the study more clearly applicable to depression in men.

Related to the measurement of the dependent variable, the study was also limited in terms of the specificity of the findings. It would be desirable to determine whether the results of the study apply only to depressive symptomatology, or to other forms of psychopathology as well. In an attempt to address this issue, participants completed the Brief Symptom Inventory (BSI; Derogatis, 1982; 1993), a self-report measure of nine symptom dimensions. The BSI also provides a Global Severity Index (GSI) score which may be considered a global measure of psychopathology. This total score correlated highly (.78) with BDI scores, as well as with the other BSI subscales (with coefficients ranging from .67 to .91). Given that the scales were inter-correlated, it was not possible to address the issue of specificity in the current sample. The implication of this limitation is that adverse childhood and marital conditions may not only contribute to higher levels of depressive symptoms, but to other psychological problems as well.

Future research could also improve upon the present study by employing a comprehensive assessment of attachment organization. For example, it would be advantageous to evaluate attachment using a lengthier attachment interview, such as the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1984) or others. There is disagreement in the literature as to whether attachment is best evaluated by self-report or interview methods, and even as to whether these two forms of measurement converge on the same constructs (Crowell, Fraley, & Shaver, 1999). The main criticism of self-report measures of attachment is the fact that they rely on individuals' conscious responses to the manifest content of the instrument. The assumption is that consciously expressed beliefs may be inaccurate reflections of the underlying attachment framework (Crowell

et al, 1999). In contrast, attachment interviews are thought to access unconscious or automatic processes directly via observation (George et al., 1984; Crowell et al., 1999). There is debate about the extent to which the results from self-report instruments are biased. It is possible that some individuals may consciously or unconsciously present themselves erroneously on self-report measures, for example by being unaware of anxious feelings toward partners. It has been argued, however, that most adults are able to provide relatively accurate information about their emotional functioning and behavior in relationships (Crowell, et al., 1999). Nonetheless, given that the present study revealed important implications for the role of attachment in understanding depressive symptomatology, future research in this area should attempt to assess this construct with a semi-structured attachment interview.

The study could also have been improved by employing a more comprehensive measure of spousal EE, such as the Camberwell Family Interview (Brown & Rutter, 1966). However, the value of such a modification is questionable given that: 1) the LEE already correlates highly with the Camberwell interview (Vaughn & Leff, 1976b; Kazarian et al., 1990); and 2) the analyses did not indicate that spousal EE is significantly associated with depressive symptomatology beyond its shared variance with the attachment variables. As mentioned previously, "Spousal EE" refers to men's perceptions of their spouses as tolerant or intolerant of them. Different results might well have been obtained by assessing spouses' levels of tolerance/intolerance via their self-report, or more directly through observation of spouses during couples' interactions.

Other limitations of the present study stem from the cross-sectional design employed. One consideration is the reliability and validity of the retrospective reports about childhood. Both parental rejection and physical abuse were measured with retrospective indices of events that

occurred in childhood (the PARQ and the CTS, respectively), raising a question as to the accuracy of participants' recall of these experiences. It may be argued that recollections of parenting could be influenced by current levels of psychopathology, including depressive symptoms. Depression may skew perceptions of childhood interactions with parents negatively, such that depressed individuals perceive their childhoods as more adverse than they actually were. However, a scholarly review of the research literature by Brewin, Andrews and Gotlib (1993) concluded that adults generally do recall childhood events relatively accurately. Although there is evidence that some reconstructive biases occur in memories of childhood, the general consensus is that such distortions are modest and "limited to a fraction of the autobiography" of most individuals (Ross & Conway, 1986, p. 139). Although there is some evidence that depression may affect recall of some events, the bulk of the literature has found that depressed individuals perform as well as controls on tests of long-term memory functioning (Brewin et al., 1993). Further, although there is some evidence that individuals sometimes recall events that are consistent with their current mood, longitudinal studies have typically found that depressed participants' recollections of their parents do not vary with symptom level (Parker, 1981; Gotlib, Mount, Cordy, & Whiffen, 1988). Thus, Brewin et al. (1993) concluded that there is little compelling evidence that depressed individuals selectively recall, exaggerate, or misinterpret childhood adversity.

There is also evidence specifically supporting the validity of the two childhood constructs. Confirmatory studies have found that adults' recollections are relatively accurate for specific events, with some tendency for physically abused individuals to actually under-report violent experiences at times (Widom & Shepard, 1996). With regard to parental rejection, PARQ scores

obtained in childhood are significantly correlated (.62) with those in adolescence, suggesting at least a moderate level of memory continuity during that temporal period (Cournoyer & Rohner, 1996).

Thus, there is little evidence that the retrospective measures used in the present study lack validity. Further, it is unclear how this aspect of the study could be improved. Using alternative or corroborative reports about the childhood family climate from other informants, such as parents or siblings, raises similar questions (Brewin et al., 1993). More objective indices of childhood adversity, such as police records of child abuse, tend to capture only reported cases of extreme maltreatment. A longitudinal study assessing children and their families and following them into adulthood would place prohibitive demands on the resources available to most researchers. Alternatively, it could be useful to utilize a longitudinal design where perceptions of parenting at one time are used to predict depression at a later time. However, such studies have previously been carried out, and suggest that perceptions of early parenting obtained at Time 1 do in fact predict the onset of a subsequent depressive episode or a change in depressive symptoms after an interval of six or seven months (Brewin et al., 1993).

The cross-sectional design of the study also severely limits the confidence with which causal statements can be made regarding the links between depressive symptomatology and the attachment dimensions. Although the correlational data are consistent with the postulate that attachment difficulties result in depressive symptoms, the possibility that depressive symptoms contribute to disruptions in attachment organization simply cannot be ruled out. A longitudinal study of depressed women by Whiffen et al. (in press) found no evidence that wives' own attachment variables at Time 1 added significantly to the variance accounted for in their Time 2

the relationships among the variables. The findings of the study must therefore be interpreted with due caution. Nevertheless, they suggest that many of the variables of interest may be implicated in men's depression, and are worth pursuing in a methodologically stonger study incorporating the following elements. First, the use of self-reported depressive symptoms as the dependent variable casts into question the extent to which the findings are generalizable to clinical depression. Future studies should address this issue by comparing non-depressed men clinically depressed men (as determined by diagnostic interviews). Second, the use of more objective measures, where appropriate, could serve to increase the rigor of the study. For example, an attachment measure which incorporates observation could be used as a more objective measure of attachment constructs. Third, the present study used a cross-sectional design to test what is essentially a longitudinal model. Future studies should employ longitudinal designs to more rigorously explore the causal links among the variables. In particular, the direction of causality between depression and attachment dimensions, as well as between depression and perceptions of childhood rejection, should be addressed.

To summarize, the present study demonstrated that depressive symptomatology in men is associated with perceptions of adverse interpersonal conditions in both adulthood and childhood. Although both perceived spousal expressed emotion and reported childhood physical abuse were correlated with depressive symptoms on their own, they were not predictive of self-reported depressive symptoms above and beyond the variance they shared with other variables. However, the findings suggested that for men, a self-reported fearful attachment to the spouse in adulthood, characterized by fears of being unloved or abandoned and by avoidance of closeness or intimacy, is associated with depressive symptoms. Additionally, the findings supported the notion that both

paternal and maternal rejection in childhood are associated with adult depressive symptoms, and that this association may be mediated by attachment variables in the case of maternal rejection only. Thus, these findings underscore the importance of the interpersonal context in understanding men's emotional functioning. They highlight the importance of parental acceptance versus rejection in boys' healthy psychological development, and support an attachment theory formulation of the development of depressive symptoms.

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Appendix

Appendices

Sample Advertisements

Recruiting Script

Informed Consent Form

Measures used in the study

SAMPLE ADVERTISEMENTS

MEN NEEDED FOR RESEARCH STUDY

We are looking for men who have been married or cohabiting with a partner for at least the past two years, to participate in a study at the University of Ottawa. You will be mailed some questionnaires to complete, and will be eligible to win \$200 in a raffle at the end of the study. We are looking both for men who feel generally unhappy or dissatisfied, and those who feel generally satisfied. Please leave a message for Lou Oliver at 562-5800, extension 4465.

MEN NEEDED FOR RESEARCH STUDY

Men who are married or cohabiting with a partner for at least the past two years, for an Ottawa University study. You will be mailed some questionnaires, and be eligible to win \$200. Please leave a message for Lou Oliver at 562-5800, extension 4465.

RECRUITMENT SCRIPT

“Thanks for calling (about the study). How did you hear about it?”

(As mentioned in the ad), the study is looking at men's marital relationships, childhood experiences and mood. It is being run by Luis Oliver and Dr. Valerie Whiffen of the University of Ottawa.

We're looking for men who are married or living with their partner for at least the past two years. Before I go on to explain the study, can I just confirm that you are you married or living with a partner? How long have you been together?

Participation in the study basically involves filling out a number of questionnaires which we mail to you, and mailing them back in a pre-stamped envelope that we provide.

The questionnaires ask about a number of things, including your mood, your relationship with your parents in childhood, and your current relationship. Completing them should take between 30 to 60 minutes, and we ask that you fill them out alone.

Some of the questions ask about personal experiences which may be upsetting for some people. If you feel uncomfortable answering a question, you are not obligated to do so. Your participation in the study is completely voluntary and you can withdraw from the study at any time. If ever you feel upset during or after completing the questionnaires, you can contact Lou Oliver, who can provide you with a list of references, at 562-5800, ext. 4465.

We consider all the information you provide as confidential. Your name will not be disclosed, and you won't be identified in connection with the study.

Also, as mentioned in the ad, we will be holding a raffle for \$200 after data collection for all those who participated. If you like, it will also be possible to receive a summary report on the results of this study once the data have been collected and analysed. Although we would not be able to provide you with feedback about your individual responses, the report will describe the major goals and findings of the study.

Do you have any questions about the study?... Would you be interested in participating?”

If no: “Alright. Thanks for calling just the same.”

If yes: “Great. Could I please have your mailing address?”

“I'll send out your questionnaire package right away, and you should be receiving it within the next few days. If you have not received the package after a long time, or if you have any questions about the study, please feel free to call back at this number. Thank you very much”

CONSENT FORM

Thank you very much for your interest in our research. You are being asked to participate in a study on men's marital relationships, childhood experiences and mood. The study is being conducted by Luis Oliver, a Doctoral candidate supervised by Dr. Valerie Whiffen at the University of Ottawa.

Your consent is required before participating in the study, and your participation is completely voluntary. You may therefore withdraw from the study or refuse to complete any part of it, without penalty, at any time. If you would like to participate, please sign the two copies of this consent form (see reverse). Then, return one copy to the researchers, along with the other questionnaires, in the stamped envelope provided. The other copy of the consent form is for your records. There is no need to sign the questionnaires themselves.

As explained on the phone, you will be completing some questionnaires, described below. All the information you provide will be kept in the strictest confidence. Your name will not be disclosed, nor will you be identified in connection with the results of the study. Your questionnaires will be assigned a number rather than a name to ensure anonymity, and all data from the study will be kept in a locked filing cabinet.

The following is a list and brief description of the questionnaires enclosed in your package. Please make sure you fill them out in the order described in the list, and please complete them without input from others. Completing the questionnaires should take between 30 to 60 minutes. You may use this as a checklist when returning your questionnaires along with one copy of this consent form:

1. *Demographic Information*: Background information such as age, occupation, etc.
2. *BDI*: Your mood over the past week.
3. *BSI*: Symptoms of emotional distress.
4. *PARQ*: Your relationship with your parents in childhood.
5. *CTS*: Use of physical discipline in childhood.
6. *LEE*: How you feel your spouse acts toward you.
7. *RAAS*: How you feel about relationships.

As mentioned over the phone, a raffle for \$200 will be held for all participants at the end of data collection for the study.

Should you have any other questions or concerns about the study, please feel free to leave a message for Luis Oliver at 562-5800, extension 4465 (#3), and someone will get back to you as promptly as possible. Should you experience any emotional distress after filling out these questionnaires, please contact us at the same number, and we will provide you with a list of references. We thank you again for your time and cooperation.

**Luis Oliver
120 University
University of Ottawa
K1N 6N5
562-5800, ext. 4465**

**Valerie Whiffen, Ph.D.
Centre for Psychological Services
University of Ottawa
K1N 6N5
562-5800, ext. 4811**

**I, (please print your name) _____, agree to
participate in the study described above.**

Date: _____

Signature: _____

If you would like to receive a summary report on the results of this study once the data have been collected and analysed, please provide your name and address below. Although we are not able to provide you with feedback about your individual responses, the report will describe the major goals and findings of the study.

Name: _____

Address: _____

DEMOGRAPHIC INFORMATION

Age: _____

Are you (please circle one): Married Cohabiting/Living Together

For how long?: _____

How many biological children do you have?: _____

How many children are living with you?: _____

Last level of completed education (please check)?:

- Grade school _____
- High school _____
- Some college or University _____
- College diploma _____
- University degree _____
- Professional degree _____
- Master's _____
- Ph.D./Doctorate _____

What category would your occupation come under (please check)?:

- Unskilled labour _____
- Skilled labour _____
- Sales and/or service _____
- Office and/or Clerical _____
- Professional _____
- Full-time homemaker _____
- Student _____
- Retired _____
- Unemployed and looking for work _____
- Unemployed and *not* looking for work _____

Household Income (please check one):

- | | |
|-------------------|-------------------|
| \$0-14,000 _____ | \$46-59,000 _____ |
| \$15-29,000 _____ | \$60-74,000 _____ |
| \$30-45,000 _____ | \$75,000+ _____ |



This questionnaire consists of 21 groups of statements. After reading each group of statements carefully, circle the number (0, 1, 2 or 3) next to the one statement in each group which best describes the way you have been feeling the past week, including today. If several statements within a 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 the way 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 now.
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 the 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 anymore.

Subtotal Page 1

CONTINUED ON BACK

 THE PSYCHOLOGICAL CORPORATION
HARCOURT BRACE JOVANOVICH, INC.

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- 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 any work 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 anymore.

- 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 by eating less. 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 about anything else.

- 21 0 I have not 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.

_____ Subtotal Page 2

_____ Subtotal Page 1

_____ Total Score

PARQ

The following pages contain a number of statements describing the way different mothers and fathers act toward their children. The first set of statements pertains to your relationship to your mother (or your primary female caregiver); the second has to do with your relationship to your father (or your primary male caregiver). Read each statement carefully and think about how well it describes the way your mother or father treated you while you were growing up. Especially think about the time when you were about 7-12 years old. Complete the questionnaire quickly; give your first impression and move on to the next item. Do not dwell on any item. If you did not have a mother or father while growing up, answer the questions as they would apply to your primary male or female caregiver, if applicable.

Four lines are drawn after each sentence. If the statement is basically true about the way your parent treated you, then ask yourself, "was it almost always true?" or, "was it only sometimes true?" If you think your parent almost always treated you that way, put an X on the line ALMOST ALWAYS TRUE. If the statement was sometimes true about the way your parent treated you then mark SOMETIMES TRUE. If you feel the statement is basically untrue about the way your parent treated you, then ask yourself, "was it rarely true?" or, "was it almost never true?" If it is rarely true about the way your parent treated you, put an X on the line RARELY TRUE. If you feel the statement was almost never true then mark ALMOST NEVER TRUE.

Remember, there is no right or wrong answer to any statement, so be as frank as you can. Respond to each statement the way you feel the parent in question really was, rather than the way you might have liked her/him to be. For example, if in your memory your mother almost always hugged you and kissed you when you were good, you should mark the item as follows:

	<u>TRUE OF MY MOTHER</u>		<u>NOT TRUE OF MY MOTHER</u>	
	<u>Almost Always True</u>	<u>Sometimes True</u>	<u>Rarely True</u>	<u>Almost Never True</u>
1. My mother hugged and kissed me when I was good.	<u> X </u>	<u> </u>	<u> </u>	<u> </u>

	<u>TRUE OF MY MOTHER</u>		<u>NOT TRUE OF MY MOTHER</u>	
	<u>Almost Always True</u>	<u>Sometimes True</u>	<u>Rarely True</u>	<u>Almost Never True</u>
<u>My Mother</u>				
1. Said nice things about me.	_____	_____	_____	_____
2. Nagged or scolded me when I was bad.	_____	_____	_____	_____
3. Totally ignored me.	_____	_____	_____	_____
4. Did not really love me.	_____	_____	_____	_____
5. Was willing to discuss general daily routines with me, and to listen to what I had to say.	_____	_____	_____	_____
6. Complained about me to others when I did not listen to her.	_____	_____	_____	_____
7. Took an active interest in me.	_____	_____	_____	_____
8. Encouraged me to bring my friends home, and tried to make things pleasant for them.	_____	_____	_____	_____
9. Ridiculed and made fun of me.	_____	_____	_____	_____
10. Ignored me as long as I did not do anything to disturb her.	_____	_____	_____	_____
11. Yelled at me when she was angry.	_____	_____	_____	_____
12. Made it easy for me to confide in her.	_____	_____	_____	_____
13. Treated me harshly.	_____	_____	_____	_____
14. Enjoyed having me around her.	_____	_____	_____	_____
15. Made me feel proud when I did well.	_____	_____	_____	_____
16. Hit me, even when I did not deserve it.	_____	_____	_____	_____
17. Forgot things she was supposed to do for me.	_____	_____	_____	_____

	<u>TRUE OF MY MOTHER</u>		<u>NOT TRUE OF MY MOTHER</u>	
	<u>Almost Always True</u>	<u>Sometimes True</u>	<u>Rarely True</u>	<u>Almost Never True</u>
<u>My Mother</u>				
18. Viewed me as a burden.	_____	_____	_____	_____
19. Praised me to others.	_____	_____	_____	_____
20. Punished me severely when she was angry.	_____	_____	_____	_____
21. Made sure that I had the right kind of food to eat.	_____	_____	_____	_____
22. Talked to me in a warm and affectionate way.	_____	_____	_____	_____
23. Was critically impatient with me.	_____	_____	_____	_____
24. Was too busy to answer my questions.	_____	_____	_____	_____
25. Seemed to resent me.	_____	_____	_____	_____
26. Praised me when I deserved it.	_____	_____	_____	_____
27. Was irritable and antagonistic toward me.	_____	_____	_____	_____
28. Was concerned who my friends were.	_____	_____	_____	_____
29. Was genuinely interested in my affairs.	_____	_____	_____	_____
30. Said many unkind things to me.	_____	_____	_____	_____
31. Ignored me when I asked her for help.	_____	_____	_____	_____
32. Was unsympathetic to me when I was having trouble.	_____	_____	_____	_____
33. Made me feel wanted and needed.	_____	_____	_____	_____
34. Told me that I got on her nerves.	_____	_____	_____	_____
35. Paid a lot of attention to me.	_____	_____	_____	_____

TRUE OF MY MOTHER

NOT TRUE OF MY MOTHER

Almost
Always
True

Sometimes
True

Rarely
True

Almost
Never
True

My Mother

- 36. Told me how proud she was of me when I was good. _____
- 37. Went out of her way to hurt my feelings. _____
- 38. Forgot important events that I thought she should remember. _____
- 39. Made me feel I was not loved any more if I misbehaved. _____
- 40. Made me feel what I did was important. _____
- 41. Frightened or threatened me when I did something wrong. _____
- 42. Liked to spend time with me. _____
- 43. Tried to help me when I was scared or upset. _____
- 44. Shamed me in front of my playmates when I misbehaved. _____
- 45. Avoided my company. _____
- 46. Complained about me. _____
- 47. Respected my point of view, and encouraged me to express it. _____
- 48. Compared me unfavorably to other children no matter what I did. _____
- 49. Took me into consideration when she made plans. _____
- 50. Let me do things I thought were important, even if it was inconvenient for her. _____
- 51. Compared me unfavorably with other children when I misbehaved. _____

	<u>TRUE OF MY MOTHER</u>		<u>NOT TRUE OF MY MOTHER</u>	
	<u>Almost Always True</u>	<u>Sometimes True</u>	<u>Rarely True</u>	<u>Almost Never True</u>
<u>My Mother</u>				
52. Left my care to someone else (e.g., a neighbor or relative).	_____	_____	_____	_____
53. Let me know I was not wanted.	_____	_____	_____	_____
54. Was interested in the things I did.	_____	_____	_____	_____
55. Tried to make me feel better when I was hurt or sick.	_____	_____	_____	_____
56. Told me how ashamed she was when I misbehaved.	_____	_____	_____	_____
57. Let me know she loved me.	_____	_____	_____	_____
58. Treated me gently and with kindness.	_____	_____	_____	_____
59. Made me feel ashamed or guilty when I misbehaved.	_____	_____	_____	_____
60. Tried to make me happy.	_____	_____	_____	_____

Thank you. Now answer the following questions as they pertain to your relationship with your father...

1) Who did you consider to be your primary “father figure” up to and before age 12? (Please check only one):

- a) your biological father: _____
- b) a step-father: _____
- c) grandfather or uncle: _____
- d) other (please specify): _____
- e) I did not really have a “father figure” as I was growing up: _____

2) Which of the following best describes the living arrangements you grew up with until age 12?:

- a) I lived mostly in the same home with my father (or father figure); _____
- b) I did not live in the same home with my father (or father figure), but I had regular contact with him; _____
- c) I saw my father (or father figure) only once in a while, irregularly; _____
- d) I had no real contact with my father (or father figure): _____

3) When you were growing up, did most of your friends have a) similar _____; or b) different _____ living arrangements with their fathers compared to you?

Please continue on the next page, rating each question as it pertains to your primary father figure (the person you mentioned in Question 1 above)...

	<u>TRUE OF MY FATHER</u>		<u>NOT TRUE OF MY FATHER</u>	
	<u>Almost Always True</u>	<u>Sometimes True</u>	<u>Rarely True</u>	<u>Almost Never True</u>
<u>My Father</u>				
1. Said nice things about me.	_____	_____	_____	_____
2. Nagged or scolded me when I was bad.	_____	_____	_____	_____
3. Totally ignored me.	_____	_____	_____	_____
4. Did not really love me.	_____	_____	_____	_____
5. Was willing to discuss general daily routines with me, and to listen to what I had to say.	_____	_____	_____	_____
6. Complained about me to others when I did not listen to him.	_____	_____	_____	_____
7. Took an active interest in me.	_____	_____	_____	_____
8. Encouraged me to bring my friends home, and tried to make things pleasant for them.	_____	_____	_____	_____
9. Ridiculed and made fun of me.	_____	_____	_____	_____
10. Ignored me as long as I did not do anything to disturb him.	_____	_____	_____	_____
11. Yelled at me when he was angry.	_____	_____	_____	_____
12. Made it easy for me to confide in him.	_____	_____	_____	_____
13. Treated me harshly.	_____	_____	_____	_____
14. Enjoyed having me around him.	_____	_____	_____	_____
15. Made me feel proud when I did well.	_____	_____	_____	_____
16. Hit me, even when I did not deserve it.	_____	_____	_____	_____
17. Forgot things he was supposed to do for me.	_____	_____	_____	_____

	<u>TRUE OF MY FATHER</u>		<u>NOT TRUE OF MY FATHER</u>	
	<u>Almost Always True</u>	<u>Sometimes True</u>	<u>Rarely True</u>	<u>Almost Never True</u>
<u>My Father</u>				
18. Viewed me as a burden.	_____	_____	_____	_____
19. Praised me to others.	_____	_____	_____	_____
20. Punished me severely when he was angry.	_____	_____	_____	_____
21. Made sure that I had the right kind of food to eat.	_____	_____	_____	_____
22. Talked to me in a warm and affectionate way.	_____	_____	_____	_____
23. Was critically impatient with me.	_____	_____	_____	_____
24. Was too busy to answer my questions.	_____	_____	_____	_____
25. Seemed to resent me.	_____	_____	_____	_____
26. Praised me when I deserved it.	_____	_____	_____	_____
27. Was irritable and antagonistic toward me.	_____	_____	_____	_____
28. Was concerned who my friends were.	_____	_____	_____	_____
29. Was genuinely interested in my affairs.	_____	_____	_____	_____
30. Said many unkind things to me.	_____	_____	_____	_____
31. Ignored me when I asked him for help.	_____	_____	_____	_____
32. Was unsympathetic to me when I was having trouble.	_____	_____	_____	_____
33. Made me feel wanted and needed.	_____	_____	_____	_____
34. Told me that I got on his nerves.	_____	_____	_____	_____
35. Paid a lot of attention to me.	_____	_____	_____	_____

TRUE OF MY FATHER

NOT TRUE OF MY FATHER

My Father

Almost
Always
True

Sometimes
True

Rarely
True

Almost
Never
True

- | | | | | |
|---|-------|-------|-------|-------|
| 36. Told me how proud he was of me when I was good. | _____ | _____ | _____ | _____ |
| 37. Went out of his way to hurt my feelings. | _____ | _____ | _____ | _____ |
| 38. Forgot important events that I thought he should remember. | _____ | _____ | _____ | _____ |
| 39. Made me feel I was not loved any more if I misbehaved. | _____ | _____ | _____ | _____ |
| 40. Made me feel what I did was important. | _____ | _____ | _____ | _____ |
| 41. Frightened or threatened me when I did something wrong. | _____ | _____ | _____ | _____ |
| 42. Liked to spend time with me. | _____ | _____ | _____ | _____ |
| 43. Tried to help me when I was scared or upset. | _____ | _____ | _____ | _____ |
| 44. Shamed me in front of my playmates when I misbehaved. | _____ | _____ | _____ | _____ |
| 45. Avoided my company. | _____ | _____ | _____ | _____ |
| 46. Complained about me. | _____ | _____ | _____ | _____ |
| 47. Respected my point of view, and encouraged me to express it. | _____ | _____ | _____ | _____ |
| 48. Compared me unfavorably to other children no matter what I did. | _____ | _____ | _____ | _____ |
| 49. Took me into consideration when he made plans. | _____ | _____ | _____ | _____ |
| 50. Let me do things I thought were important, even if it was inconvenient for him. | _____ | _____ | _____ | _____ |
| 51. Compared me unfavorably with other children when I misbehaved. | _____ | _____ | _____ | _____ |

CONFLICT TACTICS SCALE (CTS)

No matter how well a family functions, there are times when parents disagree with their children, get annoyed with them, or get upset because they're in a bad mood or tired for some reason. Parents also use different ways of trying to deal with their children when they are upset.

The following is a list of some things that your parents might have done to you when they were upset. Please indicate whether or not any of these things happened to you *before the age of 14*, and if so, the approximate number of times they occurred.

1. Did your mother or father kick you, bite you, or hit you with their fist?

No _____ Yes _____ How many times did that happen? _____

2. Did your mother or father beat you up?

No _____ Yes _____ How many times did that happen? _____

3. Did your mother or father choke you?

No _____ Yes _____ How many times did that happen? _____

4. Did your mother or father threaten you with a knife or gun?

No _____ Yes _____ How many times did that happen? _____

Level of Expressed Emotion (LEE)

Below are a number of statements that describe the ways in which someone may act toward you. Please indicate whether your spouse or romantic partner has acted in these ways over the past three months.

T / F

- T / F 1. Is tolerant with me, even when I'm not meeting his / her expectations
- T / F 2. Makes me feel guilty for not meeting his / her expectations
- T / F 3. Can see my point of view
- T / F 4. Doesn't feel that I'm causing him / her lots of trouble
- T / F 5. Puts me down if I don't live up to his / her expectations
- T / F 6. Can't stand it when I'm upset or confused
- T / F 7. Understands my limitations
- T / F 8. Is realistic about what I can and cannot do
- T / F 9. Gets angry with me when things don't go right
- T / F 10. Will take it easy with me even if things aren't going right
- T / F 11. Supports me when I need it
- T / F 12. Is understanding if I make a mistake
- T / F 13. Expects too much from me
- T / F 14. Flies off the handle when I don't do something well
- T / F 15. Expects the same level of effort from me, even if I don't feel well

RAAS (Modified)

Please read each of the following statements and rate the extent to which it describes you and your feelings about your present romantic relationship. Please use the scale below and indicate the degree to which each statement characterizes you by placing a number between 1 and 5 in the space provided to the right of each statement.

	1	2	3	4	5	
	Not at all				Very characteristic	
	characteristic				of me	
	of me					
1.	I find it relatively easy to get close to my partner					_____
2.	I find it difficult to allow myself to depend on my partner					_____
3.	I often worry that my partner does not really love me					_____
4.	I find that my partner is reluctant to get as close as I would like					_____
5.	I am comfortable depending on my partner					_____
6.	I do not worry about my partner getting too close					_____
7.	I find that my partner is never there when I need him/her					_____
8.	I am somewhat uncomfortable being close to my partner					_____
9.	I often worry that my partner will not want to stay with me					_____
10.	When I show my feelings for my partner, I am always afraid that she/he will not feel the same about me					_____
11.	I often wonder whether my partner really cares					_____
12.	I am comfortable having a close relationship with my partner					_____
13.	I am nervous when my partner gets too close					_____
14.	I know that my partner will be there when I need her/him					_____
15.	I want to be close to my partner but I worry about being hurt by her/him					_____
16.	I find it difficult to trust my partner completely					_____
17.	My partner wants me to be closer than I feel comfortable being					_____
18.	I am not sure than I can always depend on my partner to be there when I need him/her					_____

INSTRUCTIONS:

On the next page is a list of problems people sometimes have. Please read each one carefully, and blacken the circle that best describes HOW MUCH THAT PROBLEM HAS DISTRESSED OR BOTHERED YOU DURING THE PAST 7 DAYS INCLUDING TODAY. Blacken the circle for only one number for each problem and do not skip any items. If you change your mind, erase your first mark carefully. Read the example before beginning, and if you have any questions please ask them now.

					EXAMPLE
					HOW MUCH WERE YOU DISTRESSED BY:
1	0	1	2	3	Bodyaches

NOT AT ALL

A LITTLE BIT

MODERATELY

QUITE A BIT

EXTREMELY

HOW MUCH WERE YOU DISTRESSED BY:

1	0	1	2	3	4	Nervousness or shakiness inside
2	0	1	2	3	4	Faintness or dizziness
3	0	1	2	3	4	The idea that someone else can control your thoughts
4	0	1	2	3	4	Feeling others are to blame for most of your troubles
5	0	1	2	3	4	Trouble remembering things
6	0	1	2	3	4	Feeling easily annoyed or irritated
7	0	1	2	3	4	Pains in heart or chest
8	0	1	2	3	4	Feeling afraid in open spaces or on the streets
9	0	1	2	3	4	Thoughts of ending your life
10	0	1	2	3	4	Feeling that most people cannot be trusted
11	0	1	2	3	4	Poor appetite
12	0	1	2	3	4	Suddenly scared for no reason
13	0	1	2	3	4	Temper outbursts that you could not control
14	0	1	2	3	4	Feeling lonely even when you are with people
15	0	1	2	3	4	Feeling blocked in getting things done
16	0	1	2	3	4	Feeling lonely
17	0	1	2	3	4	Feeling blue
18	0	1	2	3	4	Feeling no interest in things
19	0	1	2	3	4	Feeling fearful
20	0	1	2	3	4	Your feelings being easily hurt
21	0	1	2	3	4	Feeling that people are unfriendly or dislike you
22	0	1	2	3	4	Feeling inferior to others
23	0	1	2	3	4	Nausea or upset stomach
24	0	1	2	3	4	Feeling that you are watched or talked about by others
25	0	1	2	3	4	Trouble falling asleep
26	0	1	2	3	4	Having to check and double-check what you do
27	0	1	2	3	4	Difficulty making decisions
28	0	1	2	3	4	Feeling afraid to travel on buses, subways, or trains
29	0	1	2	3	4	Trouble getting your breath
30	0	1	2	3	4	Hot or cold spells
31	0	1	2	3	4	Having to avoid certain things, places, or activities because they frighten you
32	0	1	2	3	4	Your mind going blank
33	0	1	2	3	4	Numbness or tingling in parts of your body
34	0	1	2	3	4	The idea that you should be punished for your sins
35	0	1	2	3	4	Feeling hopeless about the future
36	0	1	2	3	4	Trouble concentrating
37	0	1	2	3	4	Feeling weak in parts of your body
38	0	1	2	3	4	Feeling tense or keyed up
39	0	1	2	3	4	Thoughts of death or dying
40	0	1	2	3	4	Having urges to beat, injure, or harm someone
41	0	1	2	3	4	Having urges to break or smash things
42	0	1	2	3	4	Feeling very self-conscious with others
43	0	1	2	3	4	Feeling uneasy in crowds, such as shopping or at a movie
44	0	1	2	3	4	Never feeling close to another person
45	0	1	2	3	4	Spells of terror or panic
46	0	1	2	3	4	Getting into frequent arguments
47	0	1	2	3	4	Feeling nervous when you are left alone
48	0	1	2	3	4	Others not giving you proper credit for your achievements
49	0	1	2	3	4	Feeling so restless you couldn't sit still
50	0	1	2	3	4	Feelings of worthlessness
51	0	1	2	3	4	Feeling that people will take advantage of you if you let them
52	0	1	2	3	4	Feelings of guilt
53	0	1	2	3	4	The idea that something is wrong with your mind