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THE RELATIONSHIPS BETWEEN MARITAL  
DISTRESS AND CHILD BEHAVIOUR PROBLEMS,  
MATERNAL PERSONAL ADJUSTMENT,  
MATERNAL PERSONALITY, AND MATERNAL  
PARENTING BEHAVIOUR

by

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## ABSTRACT

The purpose of this investigation was to examine the relationship of marital adjustment to maternal personal adjustment, maternal personality, maternal perception of child adjustment, maternal parenting behaviour and child behaviour. Two groups of mothers and their children participated in the study: Mothers in the maritally distressed group ( $n = 20$ ) rated themselves on a self-report inventory as experiencing significant marital distress; mothers in the maritally non-distressed group ( $n = 20$ ) rated themselves on the same inventory as having satisfactory marital relationships. Children ranged in age between 3 and 7 years of age. Self-report measures assessing personal adjustment, personality and perception of child adjustment were completed by the mothers. In addition, maternal parenting behaviour and child behaviour were assessed by independent observers in home observations. Separate Hotelling's  $T^2$  analyses were conducted on each of the five sets of dependent measures. Results indicated that compared to mothers in the maritally non-distressed group, mothers in the distressed group perceived themselves as significantly more anxious and depressed and perceived their children as having significantly more problems especially in the area of undercontrol. There were no differences between the groups with respect to maternal personality. The results for the parent and child behavioural data were less clear. There was a trend for maritally distressed mothers to give less positive attention to their children than the non-distressed mothers gave to their children, and for

children of maritally distressed mothers to be less compliant than children of non-distressed mothers. A step-wise discriminant function analysis revealed that maternal anxiety and maternal perception of child aggression made significant non-redundant contributions to the discrimination of maritally distressed and non-distressed marriages. The results were discussed in terms of the implications for the assessment and treatment of maritally distressed mothers and their children.

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## INTRODUCTION

Marital distress is a ubiquitous problem that has received increasing attention from clinicians and researchers alike. Surveys indicate that about one couple in five reports dissatisfaction with their marital relationship (e.g., Rollins & Feldman, 1970). With such a widespread problem, it is not surprising that a large proportion of requests for outpatient mental health services emanates from marriage related problems (Overall, Henry & Woodward, 1974). Although some of these requests involve the direct solicitation of help for marital problems, frequently the presenting problem centres around an adult's or a child's individual adjustment. Only through further investigation of the family does the marital discord become evident.

The associations between marital distress and personal problems within the marital dyad as well as between marital problems and child adjustment problems have been viewed as more than purely coincidental. Research on maritally distressed couples suggests that their marriages are characterized by a greater number of unresolved problems and conflict episodes (Birchler & Webb, 1977) and more reciprocated negative verbal exchanges (Billings, 1979) than non-distressed marriages. Some theorists have suggested that such interactions may not be conducive to psychological adjustment in other members of the family (see below). Moreover, individual adjustment problems in either an adult or a child in the family could conceivably create stress and disruption in other family areas, including



the marital dyad. There has been considerable interest in attempting to understand and empirically validate these relationships. A review of the theories and empirical data relating marital distress to adult and child adjustment problems will be presented in the following sections.

### Relationship between Marital Distress and Personal Adjustment

#### Problems within the Marital Dyad: Theories

Theories relating marital distress and personal adjustment problems within the marital dyad differ with respect to the hypothesized directionality of this relationship. Some theorists suggest that maladjusted individuals predispose a marital relationship to distress, whereas others maintain that conflict within the relationship may result in individual adjustment problems. Psychoanalytic theorists (e.g., Huneus, 1963; Van Emde Boas, 1962) hypothesize that individuals with adjustment problems (e.g., neuroses) tend to marry one another in an attempt to satisfy their own unconscious needs. According to this theory, neurotic individuals will project unacceptable parts of their personalities onto their partners, who will then act them out. Conflict will ensue because the partner's behaviour is unacceptable, yet it unconsciously meets the individual's needs. Contagion theorists (e.g., Buck & Ladd, 1965) also suggest that a neurotic individual is responsible for distress in a marital relationship. They maintain that prolonged exposure of one marital partner to the neurotic behaviour of the other produces conflict which will ultimately result in neurotic

tendencies in both partners. Taking a different stance, role theorists (e.g., Crago & Tharp, 1968; Tharp & Otis, 1966) view marital distress as the precursor of individual adjustment problems. They suggest that when marital partners fail to meet each other's expectations concerning their marital roles, conflict develops, and the partners devalue themselves. This may then result in some form of individual adjustment problem. Although there is clearly agreement among theorists that marital distress and personal adjustment problems are related, none of the theorists has speculated as to why marital distress is more commonly linked to some adjustment problems than to others.

#### Relationship between Marital Distress and Personal Adjustment Problems within the Marital Dyad: Empirical Support

Researchers who have assessed the personal adjustment of individuals in distressed and non-distressed marriages have indeed found that marital distress is related to psychological maladjustment in one or both partners, although the directionality of this relationship has not been established (Barrett, 1974; Johnson & Lobitz, 1974; Murstein & Glaudin, 1968; Rogers, Young, Cohen, Dworin & Lipetz, 1970). More specifically, marital distress has been shown to be related to emotional immaturity (Dean, 1966), lowered self-concept and self-esteem (Barnett & Nietzel, 1979; Hoffman, 1970; Ilfeld, 1980), depression (e.g., Coleman & Miller, 1975) and anxiety (e.g., Rogers et al., 1970).

Depression is one disorder that is often viewed by

clinicians as being closely related to marital distress. Indeed, some psychiatrists view this relationship as being sufficiently strong as to recommend marital therapy for the treatment of depression (e.g., Heins, 1978). It does seem reasonable to expect that individuals involved in an unsatisfactory marriage characterized by conflict, unresolved problems and negative interactions may be more predisposed to depression than individuals involved in a more satisfactory marriage. Conversely, an individual experiencing the common symptoms of depression, including dysphoria, low activity level, communication difficulties and various somatic problems may put strain on the marital relationship by his or her inability to fulfill the expectations of the marital role. Researchers have found that depressed patients' marriages are characterized by a marked avoidance of communication (McLean, Ogston & Grave, 1973) and a reticence to discuss personal feelings and problems with the spouse (Bullock, Siegel, Weissman & Paykel, 1972), compared to non-depressed individuals' marriages.

Researchers who have examined sex differences in the relationship between personal and marital adjustment have tended to find a stronger relationship between marital distress and psychological maladjustment for wives than for husbands (Barnett & Nietzel, 1979; Barrett, 1974; Rogers et al., 1970). However, the association between marital distress and depression does not appear to be as consistent for women as for men. When marital distress and depression have been correlated separately for husbands and wives, a significant positive relationship between these variables for both sexes was found in one study

(Ilfeld, 1977), whereas in two other studies the relationship held only for husbands (Coleman & Miller, 1975; Weiss & Aved, 1978). Researchers who have studied depressed women or women with children who have been referred to a clinic for behaviour problems have tended to find that marital distress and depression in women are related. Rounsaville, Weissman, Prusoff and Hercey-Baron (1978) found that over half of their sample of depressed women reported having marital difficulties. Moreover, reported improvement in the marital relationship was found to be related to improvement in the depressive symptoms and overall social functioning at the end of treatment. In a recent study of mothers of clinic-referred children, Rickard, Forehand, Atkeson and Lopez (1982) found that mothers experiencing marital distress were significantly more depressed than mothers who were either divorced or not experiencing marital problems. Thus, the results of the few studies done with men are generally in agreement, but there are some inconsistencies in the results for women.

One area that has received relatively little attention in the research literature is the relationship between marital distress and anxiety. Aside from a series of case reports in which marital distress was viewed as the source of symptoms and the focus of treatment for phobias and anxiety attacks in four women (Goodstein & Swift, 1977), there have been only two studies in which the relationship between marital adjustment and anxiety has been systematically evaluated. Rogers et al. (1970) found that anxiety was significantly negatively related to marital satisfaction for wives seeking marital counselling but

not for husbands. When the maritally distressed sample was combined with a sample of couples who were not seeking marital counselling, anxiety was found to be significantly negatively correlated with marital satisfaction for both husbands and wives. Lundgren, Jergens and Gibson (1980) found that although anxiety was not related to the degree of sharing of household responsibilities or decision-making power in a marital relationship, it was significantly negatively related to the perceived solidarity of the relationship for both husbands and wives. Anxiety also was found to be significantly related to the husbands' and wives' evaluation of their own personality, their spouses' evaluation of their personality and the perceived evaluation of their personality by their spouse. In predicting anxiety using regression equation analyses, self evaluation scores were better predictors of anxiety for husbands than either perceived solidarity of the relationship or perceived evaluation by the wife, whereas solidarity and perceived evaluation by the husband were the best predictors of anxiety for wives. This would suggest that wives' emotional functioning may be more strongly related to relationship variables than husbands' emotional functioning. The results of both investigations suggest that marital distress and anxiety are positively related, perhaps more strongly for women than for men.

In sum, research in the area of marital distress and personal adjustment suggests that these problem areas are indeed related. In particular, marital distress has been found to be related to depression, anxiety, emotional immaturity and lowered

self-concept and self-esteem. With one exception (depression), these relationships have been more consistently reported for women than for men.

The literature reviewed thus far on marital and personal adjustment has focussed on specific identifiable personal problems that may be related to marital problems. Many investigators have taken a more global, less pathology-oriented approach to this area, and have examined the relationship between marital adjustment and personality traits. The rationale behind this research is that there may be negative personality traits in one or both partners that predispose a relationship to difficulties or, conversely, that a dysfunctional marriage may have negative effects on the personalities of the individuals involved.

Researchers have found that happily married men and women tend to rate themselves as more flexible (Crouse, Karlins & Schroder, 1968), altruistic (Buerkle, Anderson & Badgley, 1961), friendly (Pickford, Signori & Rempel, 1966), warm (Luckey, 1964), and less blunt, aggressive, skeptical, distrustful (Luckey, 1964), hostile, cold and fearful (Eysenck, 1980; Eysenck & Wakefield, 1981; Zaleski & Galkowska, 1978) than unhappily married men and women. Traits that have been found specifically for women to be positively correlated with marital satisfaction are trust and unrebelliousness (Murstien & Glaudin, 1966), adventure seeking (Ficher, Zuckerman & Neeb, 1981), objectivity, stability and clothes consciousness (Bentler & Newcomb, 1978). Ambition, intelligence, and interest in art have been found to be negatively correlated with marital satisfaction

in women (Bentler et al., 1978). For men, personal relations (Pickford et al., 1966) and deliberateness (Bentler et al., 1978) have been found to be positively correlated with marital satisfaction in contrast with extraversion (Bentler et al., 1978) and experience seeking (Ficher et al., 1981) which are negatively correlated with marital satisfaction.

A major problem in interpreting the results of research in this area is that most investigators have used personality inventories that provide scores for many different traits, but have neglected to use multivariate statistics to control for the likelihood of finding some significant differences by chance alone (e.g., Bentler et al., 1978; Luckey, 1964; Pickford et al., 1966). For example, Bentler et al. (1978) found two of 28 correlations between personality and marital adjustment scores for men to be significant. This result would be expected by chance alone. Thus, many of the traits attributed to happily and unhappily married individuals may simply be chance findings that will not be replicated.

Additional problems in this area are the lack of consistency and the questionable validity of the criteria used to discriminate distressed from nondistressed marriages. Some researchers have assumed that couples who are not in therapy are maritally nondistressed (e.g., Murstein & Glaudin, 1966), whereas others have simply relied on couples' verbal reports that they are not experiencing problems (e.g., Buerkle et al., 1961). Stability of the marriage rather than reported satisfaction was used as an indicator of marital adjustment in another study (Cattell & Nesselroade, 1967).

Because of the methodological problems outlined above, it is difficult to draw conclusions from this literature. The only finding that has been consistently replicated using valid and reliable measures is the one reported by Eysenck and his colleagues (Eysenck, 1980; Eysenck & Wakefield, 1981; Zaleski & Galkowska, 1978). They have obtained, for both men and women, small but significant negative correlations between marital satisfaction and hostility/coldness (the Psychoticism scale) ( $r = -.19$  to  $-.27$ ) and fearfulness (the Neuroticism scale) ( $r = -.19$  to  $-.24$ ) on the Eysenck Personality Questionnaire. The discovery of other personality traits reliably associated with marital problems awaits more methodologically sound research.

#### Relationships between Marital Distress, Parenting Behaviour and Child Behaviour Problems: Theories

The relationship between marital distress and child behaviour problems has been examined from three major theoretical orientations: family systems theory, social learning theory and role theory (cf. Margolin, 1981). Family systems theorists (e.g., Haley, 1967; Minuchin, 1974; Satir, 1969) hypothesize that a distressed marital relationship can result in dysfunctional parenting, thus rendering a child more prone to behaviour problems. According to this theory, a distressed marital relationship can affect the parent-child relationship in two ways (Satir, 1969): 1) when parents are in conflict, they may attempt to develop a more intense relationship with the child (a coalition) in order to compensate for the deterioration



of their own relationship; or 2) the parents may focus on the child's behaviour as the cause of the family disturbance and thus avoid directly confronting their own conflicted relationship (scapegoating). The child is thought to respond to this change in parent-child interaction with feelings of conflict, confusion or rejection, which may result in inappropriate behaviour. The parents may be more likely then to attend to this behaviour since it provides a distraction from their own distressed relationship. Although family systems theorists view problems in one area as affecting other areas, they do suggest that marital problems most frequently underlie child problems, but not vice-versa.

Social learning theorists (cf. Margolin, 1981) propose that a distressed marital relationship can result in child behaviour problems through accidental learning, coercion and modelling. Parents involved in marital problems may focus on their relationship and spend less time with their children. A child, feeling neglected or rejected, may accidentally find that she or he can enlist the parents' attention by behaving in a deviant manner; this behaviour then becomes reinforced through the parents' attention. The parent and child may then become involved in a coercive exchange in which they attempt to control each other's behaviour through the use of aversive consequences. Modelling also may play a more direct role in mediating this relationship, in that a child may learn aggressive behaviours modelled by the parents in their interaction with one another.

In reviewing studies of socialization, Bell (1968) hypothesized that not only do parents have effects on their

children, but children also affect their parents' behaviour. Patterson (1982) provides an explanation for how a behaviour problem child can negatively affect a marital relationship. He suggests that in a family where the child behaves in an aversive fashion and where the parents have not learned to manage the child's behaviour in an effective manner, parents and siblings may learn to be coercive in order to control the child's behaviour. The parent most involved with the children, typically the mother, may view the negative family situation as a result of her own ineffectiveness in parenting and experience a drop in self-esteem along with an increased risk of depression. The lowered self-esteem and depressed affect may in turn affect her ability to function as a marital partner. In addition, Patterson postulates that where there is an increased level of family aversiveness caused by the extensive use of coercion in the family, family members will be reluctant to spend time together in shared activities or recreation and will become more isolated from the rest of the community. This, in turn, will negatively affect the marital relationship. Patterson further suggests that increased conflict in the marriage will negatively affect parenting, producing an increase in aggressive behaviour in the problem child.

Role theorists (e.g, Cooper, Zirwing, Fedun, Kiely & Klugman, 1969; Heisler, 1972) hypothesize that the relationship between marital distress and child behaviour problems is bidirectional; that is, they view problems in either area as creating stress and an increased potential for developing problems in other family areas. For example, a problematic child

could create stress in a family by reducing the amount of freedom parents have in their choice of when and where to go out, reducing the time parents have available to each other or other family members, disrupting meals and other family events and by causing financial problems. These factors, along with the guilt, anxiety, depression or blame the partners may experience regarding the child, may increase strain in the marital relationship, especially if the partners are neither particularly supportive of one another nor able to collaborate in their methods of dealing with the child. Conversely, a distressed marital relationship may render the child more vulnerable to problems in that such factors as friction between the parents and unplanned absences of one parent can cause greater unpredictability in the home. In addition, the parents, who are involved in their own problems, may be more emotionally distant from the child and also more likely to disagree about parenting strategies, which could result in inconsistent discipline.

An overview of these theories suggests some differences as well as some commonalities in their views of the relationship between marital distress and child behaviour problems. The theories differ in the hypothesized directionality of the relationship as well as in the type and specificity of the mechanisms proposed to explain this relationship. However, they share the view that the parents' behaviour during parent-child interaction is largely responsible for the relationship between marital distress and the child's problem behaviour. As the mother is typically involved in more parent-child interaction,

the quality of her parenting behaviour is viewed as an important mediating variable. The social learning and role theories also suggest that the parent primarily responsible for child-care (usually the mother) may experience personal adjustment problems which may result from, and lead to, further problems in these areas.

### Relationships between Marital Distress, Parenting Behaviour and Child Behaviour Problems: Empirical Support

Researchers who have empirically assessed the relationship between marital and child problems have typically relied on measures of parents' perceptions of child behaviour rather than assessing actual child behaviour as reported by independent observers. Although these measures have been thought to correspond closely, recent studies of clinic-referred children suggest that parents' perceptions of child behaviour are best predicted by the actual child behaviour as measured by independent observers as well as the parents' own personal adjustment (Griest, Forehand, Wells & McMahon, 1980; Griest, Wells & Forehand, 1979; Rickard, Forehand, Wells, Griest & McMahon, 1981). As such, discrepancies between the measures of parent perception of child adjustment and actual child behaviour may be expected, especially considering the established relationship between marital distress and personal adjustment problems within the marital dyad. Since all three theories relating marital and child problems have hypothesized parenting behaviour to be a mediating link between these two problem

areas, research relating marital distress and parent behaviour will also be reviewed.

Parent perception of child behaviour. Many investigators who have examined marital problems and parent perception of child problems have assessed the marital relationships of parents of clinic-referred children. A control group consisting of parents of a matched group of non-clinic-referred children is usually included in these studies. Family systems theorists typically have used this design to compare family interaction on structured or unstructured laboratory tasks. Whereas researchers using such indirect measures of family conflict as the number of interruptions and the duration of incidences of simultaneous speech have failed to find consistent differences between clinic and non-clinic families (e.g., Becker & Iwakami, 1969; Ferreira & Winter, 1966; Leighton, Stollak & Ferguson, 1971; O'Connor & Stachowiak, 1971), researchers using more direct measures of conflict such as the frequency of parental agreements and disagreements have obtained more consistent results. They have found that parents of clinic-referred children have more disagreements and fewer agreements than parents of non-clinic-referred children (e.g., Bugental, Love & Kaswan, 1971; Byassee & Murell, 1975; Gassner & Murray, 1969; Riskin & Faunce, 1970; Schreiber, 1977). To the extent that parental agreements and disagreements can be assumed to reflect marital distress, these results provide some support for the relationship between marital and child problems.

Investigators who have more directly assessed marital distress in parents of clinic and non-clinic children by using interviewers' ratings or self-report measures of marital distress have found, with one exception (Griest et al., 1980), a positive relationship between marital and child problems. In a cross-cultural study carried out in India, Chawla and Gupt (1979) had interviewers rate parents of clinic and non-clinic children on their marital satisfaction and found that significantly more parents of clinic children than parents of non-clinic children had unsatisfactory marital relationships. Similarly, in comparing the self-reported marital satisfaction of clinic and non-clinic children, Kotler and Hammond (1981) found that clinic parents rated their marriage as significantly less satisfactory than did non-clinic parents. In assessing parents' perceptions of their child's deviancy at the initiation and termination of treatment, Oltmanns, Broderick and O'Leary (1977) found that parents of clinic-referred children were significantly more dissatisfied with their marital relationship than parents of non-referred children. Moreover, marital satisfaction scores were found to be significantly negatively correlated with child deviance scores (conduct problems) in the clinic-referred group but not in the non-clinic-referred group. Christensen and Margolin (1983) found that in families characterized by both self-reported marital and child problems, as well as in families where neither problem was evident, there were significant positive correlations between global ratings of marital problems and child problems. In addition, they found a significant positive correlation between the parents' daily

ratings of their satisfaction with their spouse and their satisfaction with their children. For both the global ratings and the daily satisfaction ratings in the distressed families, the correlations between the parents' marital satisfaction and ratings of the target child were stronger than correlations with ratings of other children in the family, suggesting a particularly strong relationship between marital problems and the target child's problems.

Porter and O'Leary (1980) had mothers of clinic-referred and non-clinic-referred children rate their marital satisfaction, their child's deviant behaviour, and the extent to which they thought their child was exposed to overt marital hostility. Although they found no relationship between marital satisfaction and child deviancy, they did find that reported exposure to overt marital hostility was positively related to conduct disorder problems and total pathology scores in younger boys (under 11 years) and to personality disorder, inadequacy-immaturity, socialized delinquency and total pathology scores in older boys (11 years and older). No relationship was found between either marital satisfaction or hostility and behaviour problems in girls, suggesting a possible sex difference in the relationship between marital distress and child deviance. Further evidence for a sex difference was obtained by Emery and O'Leary (1982), who found that boys' perceptions of their parents' marital satisfaction were negatively correlated with mothers' perceptions of their sons' deviant behaviour (conduct problems); however, mothers' ratings of their daughters' deviant behaviour and daughters' ratings of their parents' marital

adjustment were not related.

Researchers who have examined whether treatment of child behaviour problems will generalize to improvement in the marital area have obtained mixed results. Whereas Oltmanns et al. (1977) found no change in marital satisfaction for mothers or fathers following parent training, Forehand, Wells, McMahon and Griest (1982) found that parents with low, but not those with medium or high, marital satisfaction showed improvement in this area following parent training. However, the gains in marital satisfaction were not maintained at a 2-month follow-up. Margolin (Note 1) also has presented preliminary research data suggesting that in families where both marital and child problems are evident, treatment focussed on either problem results in improvement in the other problem area.

In sum, the empirical data suggest that marital distress and marital hostility (as measured by self-report and interviewers' ratings) are positively related to parents' perceptions of child deviant behaviour, at least for children already clinic-referred for behaviour problems. Problems of undercontrol (e.g., conduct disorders) seem to be more commonly related to marital distress than child problems of overcontrol (e.g., anxiety, withdrawal). In addition, some research indicates that the relationship between marital and child problems may be stronger for male than for female children. The evidence regarding the impact of treatment of either marital or child problems for the other problem area is mixed.

Although there is considerable evidence suggesting a relationship between marital and child problems in a population



of children who have already been referred for behaviour problems, relatively few investigators have assessed the relationship between marital distress and parent perceptions of child deviant behaviour in a population of children who have not come to the attention of helping agencies. This is an important distinction that clearly has clinical implications. A relationship between marital and child problems in a population referred for child problems suggests that there is an increased likelihood that these families will have marital problems as well as child problems and that both areas should be assessed. This relationship does not necessarily imply that a couple seeking help for marital problems will be likely to have problem children. A positive relationship between marital distress and parent perception of child behaviour problems in a population of children who have not been clinic-referred, however, would suggest that: 1) couples reporting marital problems would have an increased likelihood of perceiving child problems as well; and 2) children of maritally distressed couples would be at risk for being clinic-referred, since parent perception of child behaviour has been shown to be the best discriminator between clinic-referred and non-clinic-referred children (e.g., Griest et al., 1980).

There have been three studies in which this relationship has been examined in a population where there has been no child-referral. Ferguson and Allen (1978) correlated marital satisfaction scores with parent perception of child adjustment for 5 to 7-year-old children, and found a significant but low positive correlation between these two variables ( $r = .21$ ). In

addition, they found that marital adjustment was significantly correlated with congruence in the parents' perception of their child's adjustment and with congruence in their perceptions of each other, leading Ferguson and Allen to suggest that family harmony may underlie a child's social adjustment. Klein and Shulman (1980) divided their sample of 7 to 12-year-old children and their parents into maritally distressed and non-distressed groups, using the group mean score on a self-report marital questionnaire (Dyadic Adjustment Scale) as the cut-off point. They found that parents with poor marital adjustment perceived their children as having significantly more adjustment problems than parents with good marital adjustment.

In a large-scale study in which mothers', teachers' and school physicians' perceptions of emotional and anti-social behaviour in 7-year-old children were correlated with a health visitor's opinion of whether marital tension existed between the parents during a home visit, Whitehead (1979) obtained the following results: Compared with maritally non-distressed mothers, mothers who were judged to be maritally distressed rated their sons as more "sad, miserable and tearful" and as being more likely to become involved in fights and destroy others' belongings; in addition, they rated their daughters as "more sensitive or highly-strung" and as being more likely to become involved in fights. In comparison with children from maritally non-distressed homes, teachers rated both boys and girls from maritally distressed homes as having greater difficulty "settling down in school," and the boys in particular were perceived as being more "hostile" towards other children in

school. School physicians were more likely to rate girls from maritally distressed homes as "emotionally maladjusted". Moreover, both boys and girls were more likely to be attending a child guidance clinic if marital distress was present in the home.

Although these studies do suggest a relationship between marital distress and parent perception of child adjustment, the usefulness of their results is limited by a number of methodological problems: 1) in Whitehead's study (1979), neither the reliability nor the validity of the measure of marital distress (health visitor's opinion of whether marital tension existed during a home visit) was established; 2) the sample selected by Ferguson and Allen (1978) was disproportionately represented by maritally satisfied couples and non-deviant children; and 3) neither the range of marital adjustment scores nor the means of the maritally distressed and non-distressed groups were specified in Klein and Shulman's study (1980). Thus, the representativeness of the samples cannot be determined.

Child behaviour. The relationship between marital distress and child deviant behaviour has been assessed by an independent observer in only one study. In this study, Johnson and Lobitz (1974) assessed self-reported marital adjustment, personal adjustment (MMPI) and independent observers' ratings of child behaviour and parent behaviour in a sample consisting of 17 boys (aged 2-12) clinic-referred for conduct problems. Observers rated 15 behaviours that had previously been designated as

deviant by parents of normal children, and the scores on these behaviours were summed to provide a total child deviant behaviour score. The results indicated that marital adjustment was significantly negatively related to child deviant behaviour for fathers ( $r = -.52$ ) and for both parents together ( $r = -.45$ ), but the relationship for mothers fell just short of statistical significance ( $r = -.32$ ,  $p < .11$ ). The authors suggest that the small sample size ( $n = 17$ ) and the resultant increased likelihood of making a Type II error (failing to reject a false null hypothesis) may have been an important factor in the lack of statistical significance in the relationship for mothers. In any event, overall test results suggest a strong relationship between marital adjustment and child deviant behaviour, at least for clinic-referred children.

There have not been any studies in which the relationship between marital distress and independent observers' assessments of child deviant behaviour has been examined in a non-clinic-referred population. Without such research it is difficult to establish whether the parents' perception of behaviour problems reflects an accurate perception of the child's behaviour or whether the perception is influenced by marital and/or personal adjustment problems (Griest & Wells, 1983).

In addition to relying on the parent's perception of child behaviour, researchers also have used the child's or adolescent's assessment of her or his own adjustment, or the teacher's perception of child adjustment as an indicator of child adjustment. Results from these studies indicate that marital distress is negatively related to the child's assessment

of his or her self-concept (Raschke & Raschke, 1979), self-esteem (Foster, 1977), and personality adjustment (Burchinal, Hawkes & Gordon, 1957); and is positively related to the adolescent's assessment of her or his psychosomatic illness and delinquent behaviour (Nye, 1955), and depression, discomfort, alienation and social non-conformity (Schwarz & Getter, 1980; Schwarz & Zuroff, 1979). Interestingly, Schwarz and his colleagues (1979, 1980) found that some of the adjustment scores were best predicted by a three-way interaction involving parental conflict, parental dominance, and gender of the adolescent, such that having an opposite-sex parent dominant when parental conflict was high tended to be associated with low psychological adjustment for the adolescent. In accounting for this relationship, Schwarz (1979) suggests that parental conflict may force a child to align him or herself with one parent, often the more powerful parent. If the more powerful parent is opposite in gender, the child may experience conflict which could be expressed in some disorder. However, Schwarz suggests that variables such as the child's sex, temperament, and alternate sources of support may alter this relationship.

Rutter (1971) had teachers rate the presence of neurotic and anti-social disorders in children of families in which one parent had been referred recently for psychiatric help. He found a significant linear trend relating marital distress to anti-social behaviour in boys, but no such relationship was found for girls. Rutter's results also suggested that the effects of marital discord on children are not necessarily permanent, since children from poor marital relationships who were relocated in

homes with less marital distress subsequently showed significantly less anti-social behaviour compared with children who were relocated in homes with poor marital relationships. In an examination of variables that could potentially mediate this relationship, Rutter found that in homes where the marital relationship was good or fair, the presence of emotional maladjustment in either parent made no difference, but in homes where the marital relationship was poor and there was an emotionally disordered adult, twice as many boys were rated as anti-social. In addition, he found that, regardless of the quality of the marital relationship, there was less anti-social behaviour in boys if they had a good relationship with at least one parent.

To summarize, researchers have found that marital distress is related to independent observers' assessments of child deviance in clinic-referred boys. Although this relationship has not been assessed in a non-clinic-referred population, children's and teachers' perceptions of child adjustment suggest that these variables are positively related to marital adjustment. Moreover, Rutter's study (1971), like some of the studies in which parent perception of child adjustment in clinic-referred children was assessed (Emery & O'Leary, 1979; Porter & O'Leary, 1980), found support for the relationship for boys but not for girls. Schwarz and his colleagues (1979, 1980) have suggested that parental dominance may play a role in mediating this gender-linked relationship. Although Rutter (1971) found that marital distress was related to behavioural problems of undercontrol (antisocial behaviour) and not to

problems of overcontrol (neurosis), other researchers have found relationships for both (e.g., Nye, 1955; Whitehead, 1979).

Parenting behaviour. Although parenting behaviour has been widely viewed as an important mediating variable in marital and child problems, relatively few investigators have examined the relationship between marital distress and parenting behaviour. Only one research team has used independent behavioural observations of parenting behaviour. Johnson and Lobitz (1974) correlated marital adjustment scores with home observations of parental negativity in clinic-referred children. The parental negativity score was based on the proportion of total parental behaviour that involved negative communication directed toward the child. The results indicated a significant negative correlation between marital adjustment and maternal negativity ( $r = -.45$ ), negativity of both parents together ( $r = -.50$ ), and a non-significant trend for paternal negativity ( $r = -.30$ ,  $p < .15$ ).

Researchers assessing the relationship between marital distress and parenting behaviour in a non-clinic population have relied exclusively on parents' self-reports or adolescents' reports of parenting behaviour. Porter (1955) found that parents' reports of their marital satisfaction correlated highly with their reports of their acceptance of the child. However, in a more recent study, Emery and O'Leary (1982) found that children's ratings of the degree of acceptance they felt from their parents were not related to their own or their parents'

ratings of marital satisfaction. Kaufman (1961) found that adolescent's assessments of their relationships with their parents were significantly correlated with parents' reports of marital adjustment. In assessing the relationship between college students' perceptions of their parents' marital satisfaction and conflict and their perceptions of the rewards and punishments they received from them, Kemper and Reichler (1976) found that the father's marital distress and conflict was related to both son's and daughter's punishments, whereas the mother's marital conflict was related to son's but not to daughter's punishments. Both parents' marital satisfaction was related to the intensity and frequency of rewards for sons and daughters, but the mother's marital satisfaction was more highly related to daughter's rewards than was the father's marital satisfaction.

In sum, research within this area, although sparse, suggests a relationship between marital distress and parenting behaviour; moreover, there is some evidence to suggest that this relationship is stronger for mothers than for fathers.

### Conclusions

Various theorists have hypothesized relationships between marital distress and both adult and child adjustment problems. There has been general agreement among these theorists that parent behaviour, especially maternal parent behaviour, may be a mediating link in the relationship between marital and child problems. Some theorists also have postulated that difficulties



in the marital or child domain may render the parent who is primarily responsible for child-care (typically the mother) more vulnerable to personal adjustment problems which, in turn, may lead to further problems in other areas. Thus, on a theoretical basis, marital distress seems to be related to personal adjustment problems within the marital dyad, to child behaviour problems, and to less effective maternal parenting behaviour.

Investigators who have assessed these relationships empirically have found that marital distress is positively related to various personal adjustment problems within the marital dyad. With the exception of depression, the relationship of marital distress to these adjustment problems is more consistently reported for women than for men. There is some research to indicate a relationship between marital problems and certain personality traits, although many of the studies in this area have been flawed by the use of univariate rather than multivariate statistics. Research also supports a positive relationship between marital distress and parent perception of child behaviour problems, although the methodological problems inherent in the studies of non-clinic-referred children make the conclusions in this area more tentative. Whereas marital distress has been shown to be related to problems of overcontrol in children, problems of undercontrol have been found to be more consistently correlated with marital problems. There also is some evidence to indicate that the relationship between marital and child problems may be more likely to occur for boys than for girls. Positive relationships have been established between marital distress and negative parent behaviour in a population

where the child has been clinic-referred for behaviour problems; however, these relationships have not been assessed in a non-clinic-referred population.

Although marital distress has been viewed theoretically as being related to personal adjustment, child behaviour and parenting problems, only one study has assessed the relationship of marital distress to all of these variables (Johnson & Lobitz, 1974). These researchers studied clinic-referred children and their parents. The other studies involving non-clinic-referred children have assessed one of these relationships to the exclusion of the others, thereby making it impossible to compare the strength of these relationships.

The purpose of the present study was to provide a systematic, comprehensive investigation of the relationship of marital adjustment to maternal personal adjustment and personality traits, to maternal perception of child adjustment, and to child and parent behaviour as assessed by independent observers in samples of maritally distressed and non-distressed mothers and their children. The sample consisted of children who had never been clinic-referred for behaviour problems. This study provided an opportunity both to replicate the findings from the few studies that have related marital distress and parent perception of child adjustment in a sample of non-clinic-referred children, and to extend the research in this area by providing information on the relationships of parent and child behaviour to marital distress. It is important to note that this study was not designed to assess the relative efficacy of the theories relating marital and child problems. Rather, the

present investigation was designed to determine whether there are empirical relationships between marital distress and the five factors of maternal personal adjustment, personality, perception of child adjustment, parent and child behaviour. In addition, this investigation was able to determine the relative relationships between each of these five factors and marital distress.

The sample consisted of 40 mother-child pairs. Mother-child pairs were selected because: 1) theoretically, maternal parenting has been viewed as an important mediating link between marital distress and child behaviour problems; 2) the evidence that is available suggests that the relationship between marital distress and negative parent behaviour is stronger for mothers than for fathers; and 3) the relationship between marital distress and personal adjustment problems has, in general, been more consistently reported for women than for men.

Half of the sample consisted of mothers who, according to a well-validated self-report measure, were experiencing significant distress in their marital relationship. The other half consisted of mothers who, according to their self-report, were not experiencing marital problems nor had they ever sought treatment for marital problems in their current relationship. Only children between the ages of 3 and 7 years were included in this study. Some researchers have sampled children from a larger age range. For example, Johnson and Lobitz (1974) included children aged 2 to 12 in their study. Since results from samples containing a large age range would be likely to include variance due to developmental changes in childrens' responses, a narrower

age range was considered preferable. A younger age range was selected because parents have a more exclusive influence on their children during this period; thus, marital adjustment, personal adjustment, parenting and child problems would be expected to be more interrelated for this age group.

Although the relationship between marital distress and depression has a certain clinical appeal, the research findings for this relationship have been inconsistent, at least for women. In order to clarify this relationship further, a measure of depression was included in this study. Since the relationship between marital distress and anxiety has received little attention in the literature, a self-report measure of anxiety also was included.

This study was designed to test the following hypotheses: Compared to maritally non-distressed mothers, maritally distressed mothers will be more depressed and anxious; will differ in terms of their personality traits; will perceive their children as more deviant; will demonstrate less appropriate parent behaviour; and will have children who are, in fact, more deviant. Because of the close relationship that has been found between marital distress and personal adjustment problems, it also was hypothesized that personal adjustment problems would be the best predictor of marital distress. Since parent perception of child adjustment is likely to be affected by both parent adjustment and child behaviour, parent perception of child adjustment was hypothesized to be the second best predictor of marital distress. Child behaviour was hypothesized to be the third best predictor of marital problems, followed by parent

behaviour. This order was selected because the relationship between marital problems and child problems has been established more firmly in the literature than has the relationship between marital problems and parenting behaviour. Finally, because of the relatively weak correlations found in the literature between personality and marital problems, parent personality was hypothesized to be the least effective predictor of marital problems.

## METHOD

### Subjects

The sample consisted of 40 mother-child pairs. Half of the sample ( $n = 20$ ) was comprised of mothers who, according to their scores on a self-report marital inventory (the Dyadic Adjustment Scale), perceived themselves to be seriously dissatisfied with their marital relationship. Of these, eight mothers were involved in the early stages of marital therapy (fewer than seven treatment sessions) and were referred to the study by their marital therapists. The other 12 mothers were solicited through newspaper advertisements (see Appendix A). Two of these mothers also were involved in marital therapy. Thus, of the 20 women who perceived themselves as maritally distressed, ten were involved in marital therapy and ten were not.

In order to determine whether the mothers in marital therapy and those not in marital therapy could be treated as a single maritally distressed group, the two subgroups were compared with respect to demographic variables, mother's perception of marital adjustment, measures of mother's perception of her own personal adjustment and personality, measures of mother's perception of her child's adjustment and behavioural observation measures of parent and child behaviour. A Hotelling's  $T^2$  analysis revealed no significant differences on the demographic variables of age of child, age of mother, length of marriage, number of children in the family and socioeconomic

status of the family,  $F(5,14) = 0.87$ ,  $p > .50$ . Socioeconomic status was calculated using the occupational and educational level of the head of the household as specified in the social status index developed by Myers and Bean (1968). Means and standard deviations of these demographic variables are presented in Table 1. Chi-square analyses revealed no significant differences between the subgroups for the number of male and female children,  $\chi^2(1) = .95$ ,  $p > .25$ , number of children in daycare,  $\chi^2(1) = 0$ ,  $p > .50$ , number of mothers involved in their first or second marriage,  $\chi^2(1) = .39$ ,  $p > .50$ , and number of mothers employed full-time, part-time, or unemployed,  $\chi^2(2) = 1.2$ ,  $p > .10$ . The frequency data for these variables are presented in Table 2.

A comparison of the marital adjustment scores (Dyadic Adjustment Scale) of the two subgroups using a t-test yielded no significant differences,  $t(18) = 0.62$ ,  $p > .50$ . Similarly, a Hotelling's  $T^2$  analysis revealed no significant differences between the two subgroups on the measures of the mother's perception of her own adjustment (Beck Depression Inventory, Spielberger State-Trait Anxiety Inventory),  $F(2,17) = 0.53$ ,  $p > .50$ . The means and standard deviations of the marital adjustment and personal adjustment inventories for the two subgroups are presented in Table 3. No significant differences were found between the two subgroups on the scales measuring the mother's perception of her own personality (Personality Research Form), using a Hotelling's  $T^2$  analysis  $F(15,4) = 3.41$ ,  $p > .10$ . The means and standard deviations of the personality scales are presented in Table 4. A Hotelling's  $T^2$  analysis of the measures

Table 1

Means and Standard Deviations of Demographic Characteristics for  
Maritally Distressed Mothers in Therapy and Not in Therapy

Variables	In Therapy		Not in Therapy	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Age of child (months)	59.00	16.94	59.70	13.70
Age of mother (years)	31.50	3.06	34.70	3.89
Length of marriage (years)	8.80	2.86	11.09	3.96
Number of children in family	1.90	0.74	2.60	1.17
Socioeconomic status	33.60	20.19	35.40	16.75

Note. n = 10 for each group.



Table 2

Frequency Data of Demographic Characteristics for Maritally  
Distressed Mothers in Therapy and Not in Therapy

Variable	Frequency	
	In Therapy	Not in Therapy
Sex of child		
male	6	8
female	4	2
Child in daycare		
in daycare	1	1
not in daycare	9	9
Number of marriages		
first marriage	8	9
second marriage	2	1
Mother employed		
full-time	3	1
part-time	3	4
not employed	4	5

Note. n = 10 for each group.

Table 3

Means and Standard Deviations of Marital and Personal Adjustment Measures for Maritally Distressed Mothers in Therapy and Not in Therapy

Variable	In Therapy		Not in Therapy	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Dyadic Adjustment Scale	84.70	9.51	82.10	9.10
Beck Depression Inventory	8.40	8.90	9.40	6.34
State-Trait Anxiety Inventory	45.00	11.64	44.70	9.79

Note. n = 10 for each group.

of the mother's perception of her child's adjustment (Parent Attitudes Test, Becker Bipolar Adjective Checklist, Child Behavior Checklist) revealed no significant differences between the two subgroups,  $F(5,14) = 0.64$ ,  $p > .50$ . The means and standard deviations of these measures are presented in Table 5. A Hotelling's  $T^2$  analysis revealed no significant differences between the two subgroups on the child behavioural measures of compliance to alpha commands and child inappropriate behaviour,  $F(2,17) = 0.43$ ,  $p > .50$ . In addition, no significant differences were found on the parent behavioural measures of rewards plus attends and beta commands,  $F(2,17) = 2.69$ ,  $p > .10$ , using a Hotelling's  $T^2$  analysis. Results from a t-test also revealed no significant differences on the measure of contingent attention,  $t(18) = 0.12$ ,  $p > .50$ . The means and standard deviations of the behavioural observation measures are presented in Table 6.

Since no significant differences were found for any of the relevant variables between the maritally distressed mothers who were involved in marital therapy and those who were not, it was assumed that the two subgroups came from the same population and hence could be treated as a single group. These subjects comprised the maritally distressed group.

The other half of the sample ( $n = 20$ ) was comprised of mothers who, according to their scores on the Dyadic Adjustment Scale, perceived their marital relationship to be satisfactory. In addition, they had no reported history of marital therapy in their current marital relationship. These women were recruited through newspaper and community centre advertisements (see Appendix A). Women involved in this group formed the maritally

Table 4

Means and Standard Deviations of Scales of the Personality  
Research Form for Maritally Distressed Mothers in Therapy and  
Not in Therapy

Scale	In Therapy		Not in Therapy	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Achievement	12.90	2.77	13.20	3.08
Affiliation	15.70	2.87	14.60	3.13
Aggression	4.00	2.11	8.10	3.75
Autonomy	6.30	2.31	7.70	1.83
Dominance	7.40	4.40	10.40	4.88
Endurance	10.60	2.87	11.70	4.22
Exhibition	6.60	4.72	10.30	4.11
Harmavoidance	12.20	3.99	11.50	4.35
Impulsivity	9.60	3.98	10.00	3.68
Nurturance	15.70	3.02	15.20	1.55
Order	10.60	4.76	10.80	4.31
Play	8.90	4.23	8.40	3.02
Social Recognition	8.70	3.86	8.80	2.97
Understanding	14.10	2.85	14.00	1.76
Infrequency	0.30	0.48	1.00	1.25

Note. n = 10 for each group.

Table 5

Means and Standard Deviations of the Parent Perception of Child Measures for Maritally Distressed Mothers in Therapy and Not in Therapy

Variable	In Therapy		Not in Therapy	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Parent Attitudes Test	44.30	13.23	47.70	12.17
Child Behavior Checklist	59.60	9.67	57.40	8.60
Becker Bipolar Adjective Checklist				
Less Withdrawn and Hostile	19.40	8.95	22.00	6.99
More Aggressive	0.00	6.68	-0.30	7.94
More Conduct Problems	-4.30	8.10	0.70	7.59

Note. n = 10 for each group.

Table 6

Means and Standard Deviations of the Two Child and Three Parent Behavioural Measures for Maritally Distressed Mothers in Therapy and Not in Therapy

Variable	In Therapy		Not in Therapy	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Compliance to Alpha	89.56	6.45	85.36	13.44
Commands plus Warnings <sup>1</sup>				
Inappropriate Behaviour <sup>1</sup>	4.69	3.04	6.06	4.53
Rewards plus Attends <sup>2</sup>	0.45	0.29	0.60	0.29
Beta Commands <sup>2</sup>	0.59	0.22	1.07	0.61
Contingent Attention <sup>2</sup>	4.27	2.49	4.13	2.36

Note. n = 10 for each group.

<sup>1</sup> Child behaviour

<sup>2</sup> Parent behaviour

non-distressed group.

Although 40 mothers completed the study, a total of 52 expressed an interest in participating. Of the 12 mothers who did not complete the study, nine failed to meet the requirements for participation in the study, two decided not to participate after the initial interview, and one dropped out before completing the home observations.

The children involved in the study ranged between 3 and 7 years of age inclusive, and had no reported history of clinic referral for child behaviour problems. There were 6 girls and 14 boys in both the maritally distressed and non-distressed groups.

A comparison of the two groups using a Hotelling's  $T^2$  analysis revealed no significant differences on the demographic variables of age of child, age of mother, length of marriage, number of children in the family and socioeconomic status of the family,  $F(5,34) = 0.15$ ,  $p > .50$ . The means and standard deviations of these demographic variables are presented in Table 7. Chi-square analyses revealed no significant differences between the two groups on sex of child,  $\chi^2(1) = 0.0$ ,  $p > .50$ , number of children in daycare,  $\chi^2(1) = 0.36$ ,  $p > .50$ , number of mothers involved in their first versus second marriage,  $\chi^2(1) = 0.91$ ,  $p > .25$ , and number of mothers employed full-time, part-time, or unemployed,  $\chi^2(2) = 0.50$ ,  $p > .25$ . The frequency data for these variables are presented in Table 8.

Table 7

Means and Standard Deviations of Demographic Characteristics for  
Maritally Distressed Mothers and Non-Distressed Mothers

Variable	Maritally Distressed		Maritally Non-Distressed	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Age of child (months)	59.35	15.00	58.50	14.41
Age of mother (years)	33.10	3.78	32.00	3.93
Length of marriage (years)	9.95	3.56	9.55	3.12
Number of children in family	2.25	1.02	2.15	0.81
Socioeconomic status	34.50	18.08	36.00	14.52

Note. n = 20 for each group.



Table 8

Frequency Data of Demographic Characteristics for Maritally  
Distressed Mothers and Maritally Non-Distressed Mothers

Variable	Frequency	
	Maritally Distressed	Maritally Non-Distressed
Sex of child		
male	14	14
female	6	6
Child in daycare		
in daycare	2	1
not in daycare	18	19
Number of marriages		
first marriage	17	18
second marriage	3	2
Mother employed		
full-time	4	2
part-time	7	7
not employed	9	11

Note. n = 20 for each group.

## Observers and Training

Seven undergraduate psychology majors from the University of British Columbia were employed as home observers. These observers remained naive as to the purpose and methodology of the study. Three graduate students and four undergraduate students experienced in using the coding system served as calibrating observers during the reliability checks. Coders received at least 30 hours of training in the coding system, which consisted of didactic presentation of the system and practice in coding role-played, videotaped and live mother-child interactions. Each observer reached at least 80% agreement with a pre-scored 10-minute videotaped mother-child interaction before being permitted to collect data. During the data collection period, 1-hour training sessions were held weekly to maintain high reliability and reduce observer drift.

## Coding System

The coding system used in the home observations was formulated by Forehand, Peed, Roberts, McMahon, Griest and Humphreys (Note 2). This system involved the recording of mother and child behaviours within 30-second intervals as well as a 30-second time sampling measure of child inappropriate behaviour (other than noncompliance). Using this system, the following parent and child behaviours were recorded:

Parent:

(1) Rewards. Labelled verbal rewards (praise of the child's

- specific behaviour), unlabelled verbal rewards (praise of the child or her or his activity that does not specify the reason for the praise), descriptions of the child's behaviour that denote better than average performance, and physical rewards (physical contacts such as kisses or hugs).
- (2) Attends. Verbal descriptions of the activity, spatial orientation or appearance of the child.
  - (3) Questions. Interrogatives or suggestions that require a verbal response on the part of the child.
  - (4) Commands. Orders, suggestions, demands or directions in the form of statements or questions that require a verbal or motor response from the child. Commands can be those with which the child does (alpha) and does not (beta) have an opportunity to comply.
  - (5) Warnings. Contingency statements describing negative consequences for the child that will be administered by either parent in the presence or absence of a specified behaviour.
  - (6) Time-out. Any procedure used by the parent that removes the child from positive reinforcement.

#### Child:

- (1) Compliance. Initiated obedience to a parental command within 5 seconds of that command.
- (2) Noncompliance. Failure to initiate compliance with a parental command within 5 seconds of that command.
- (3) Inappropriate behaviour. Whining, crying, yelling, tantrums, aggression or threat of aggression toward objects or people,

or inappropriate talk (which includes disrespectful statements, stated refusals to comply, threatening commands to the parent, profanity and repetitive requests).

(4) Appropriate behaviour. All child behaviour not in the inappropriate behaviour category.

### Measures

Both self-report and observational measures were used in this study. The self-report measures included: a marital adjustment inventory, two personal adjustment inventories, a personality inventory, and three parent perception of child adjustment inventories. Observational measures of parent and child behaviours were recorded in the home by independent observers. The self-report inventories and scoring procedures are contained in Appendices B-H.

Marital adjustment. The Dyadic Adjustment Scale (DAS) (Spanier, 1976) (Appendix B) was administered to mothers to assess perceptions of their marital adjustment. This 32-item self-report inventory contains four empirically validated subscales of marital adjustment: dyadic consensus, dyadic cohesion, dyadic satisfaction and affectional expression. Dyadic consensus refers to the extent of spouses' agreement regarding such general marital issues as finances, recreation, religion, friends, in-laws, philosophy of life, goals, conventionality,

time spent together, leisure-time activities, household tasks, major decisions and career decisions. Dyadic cohesion assesses the extent to which partners involve themselves in such joint activities as working, talking, laughing, exchanging ideas, and participating in outside interests together. Dyadic satisfaction refers to the spouses' overall evaluation of their marital relationship and their level of commitment to the relationship. Affectional expression assesses the degree of affection and sexual involvement in the relationship. High internal consistency reliability has been demonstrated for these four subscales as well as the complete scale (Spanier, 1976). In addition, evidence supporting content, criterion-related and construct validity for this scale has been reported (Spanier, 1976).

In collecting normative data for this scale, Spanier (1976) administered the DAS to 218 married couples of varying socio-economic backgrounds and obtained a mean score of 114.8 and a standard deviation of 17.8 for this sample. Although Spanier has not specified DAS cut-off scores for classifying individuals as distressed or non-distressed, Jacobson and Anderson (1980) have suggested using a cut-off score that corresponds to one standard deviation below Spanier's normative sample mean to classify individuals as maritally distressed. This yields a cut-off score of 97. To date, there have been no reports in the literature of using a DAS cut-off score to classify individuals as maritally non-distressed. However, in a study assessing the marital adjustment of 50 mothers, Houseknecht (1979) obtained a mean DAS score of 107.34 for this sample. Since the population in the

present study also involves mothers, the mean of this sample (107) would appear to be an appropriate cut-off score for classifying subjects as maritally non-distressed. Thus, in this study, the criterion for the selection of maritally distressed mothers was a DAS score at or below 97 and for maritally non-distressed mothers a DAS score at or above 107. Mothers who obtained a score between 97 and 107 were not included in the study.

Parental personal adjustment. The Beck Depression Inventory (BDI) (Beck, 1967) (Appendix C) and the Trait form of the State-Trait Anxiety Inventory (STAI) (Spielberger, Gorsuch & Lushene, 1970) (Appendix D) were administered to mothers to assess perceptions of their personal adjustment.

The BDI, a 21-item self-report inventory, assesses emotional, cognitive, motivational and physical symptoms of depression. Substantial evidence supporting the reliability and the content, concurrent and construct validity of this instrument has been demonstrated (Beck, 1967). For example, scores on this inventory have been shown to correlate significantly with clinicians' ratings of depression (Beck, 1967; Metcalfe & Goldman, 1965) and with objective behavioural measures of depression (Williams, Barlow & Agras, 1972).

The STAI consists of a state and trait form, each containing 20 statements related to general anxiety. State anxiety refers to an individual's emotional response to the threat perceived in a particular situation. This state

fluctuates over time, varying directly with the intensity of the perceived threat. Trait anxiety refers to an individual's tendency to perceive threatening events across a broad spectrum of stimulus conditions, and is much less sensitive to short-term environmental stressors. Spielberger et al. (1970) have provided data supporting the reliability and the concurrent and construct validity of this measure. Research suggests that although short-term stressors do not affect trait anxiety scores (e.g., Martuza & Kallstrom, 1974; Spielberger, Auerbach, Wadsworth, Dunn & Taulbee, 1973), longer-term stressors do appear to be associated with higher trait anxiety scores. For example, Manuck, Hinrichsen and Ross (1975) found that increasing levels of life stress were associated with higher trait anxiety as well as state anxiety scores, and Griest et al. (1980) found that mothers of clinic-referred children with behaviour problem children showed higher trait anxiety scores than mothers of non-clinic children.

Parental personality. The Personality Research Form (PRF) (Jackson, 1967) (Appendix E) was administered to mothers to assess perceptions of their own personality traits. The PRF was designed to provide measures of personality traits relevant to the normal functioning of individuals in a wide variety of situations. There are four forms of the PRF: parallel forms A and B each include 300 items and provide scores for 14 personality variables and one validity scale; and parallel forms AA and BB each include the 300 items of forms A and B plus an

additional 140 items and provide scores for 20 personality variables and two validity scales. Form A was used in the present study. Jackson (1967) has provided substantial evidence supporting the reliability and the convergent and discriminant validity of this inventory. For example, in one study PRF scores were correlated with pooled peer ratings as well as self ratings of personality and the combined scores of the two parallel forms yielded a median correlation of .52 with peer ratings and a median correlation of .56 with self ratings (Jackson, 1967). In addition, extensive norms have been developed for all forms of the test.

Parental perception of child adjustment. The Parent Attitudes Test (PAT) (Cowen, Huser, Beach & Rappaport, 1970) (Appendix F), the Patterson and Fagot (1967) abridged version of the Becker Bipolar Adjective Checklist (Becker) (Becker, 1960) (Appendix G), and the Child Behavior Checklist (CBC) (Achenbach, 1978) (Appendix H) were administered to mothers to assess maternal attitudes toward, and perceptions of, child behaviour. The PAT is comprised of three scales: The Home Attitude Scale contains seven items designed to elicit the parent's perception of the child's adjustment in the home; the Behavior Rating Scale consists of 25 statements of deviant behaviours; and the Adjective Checklist Scale contains 34 adjectives that describe the child's behaviour or personality characteristics. Cowen et al. (1970) have provided evidence demonstrating the reliability and criterion-related validity of these scales. Subsequent



researchers have shown that parents of clinic-referred children rate their children as more poorly adjusted on each of these three scales than do parents of non-clinic children (Forehand, King, Peed & Yoder, 1975; Griest et al., 1980), and that the ratings of parents of clinic-referred children show positive increases following the implementation of a parent training program (e.g., Forehand & King, 1977; Forehand, Wells & Griest, 1980; Peed, Roberts & Forehand, 1977). Because these three scales are highly correlated and all three provide global measures of child adjustment, the three scales were summed to provide a single measure of parent perception of child adjustment in this study.

The abridged version of the Becker contains 47 bipolar adjective pairs which anchor the end points of seven-point Likert scales. Three of the five factors derived from the scale were used: Less Withdrawn and Hostile, More Aggressive, and More Conduct Problems. Becker (1960) has provided evidence for the reliability of the original scale, and Lobitz and Johnson (1975) have demonstrated criterion-related validity for the abridged version of the checklist. In addition, these three factors have been shown to reliably discriminate clinic-referred from non-clinic-referred children (Griest et al., 1980).

The CBC was designed to assess parents' perceptions of social competencies and behaviour problems of children aged 4 through 16. The Social Competency scale yields scores on three areas of social competency and participation in various activities, social relationships and school success. The Behaviour Problem scale yields a total behaviour problem score,

subscores on two broad-band behaviour problem factors (Internalizing and Externalizing) and scores on up to 12 narrow-band behaviour problem factors (e.g., depressed, obsessive-compulsive, uncommunicative, somatic complaints, etc.). The behaviour problem scales (broad-band and narrow-band) were derived through factor analysis of problem checklists completed by parents of clinic-referred behaviour problem children. In addition, norms have been derived for each scale based on responses from a randomly selected sample of parents of normal (non-referred) children. The behaviour problem scales have been standardized for each sex, ages 4-5, 6-11, and 12-16 years.

No scales or norms are available for 3-year-olds, an age group that was included in this study. In order to obtain a complete set of data for all subjects, the norms for the 4-5 year olds were used for the 3-year-olds in this study. Total behaviour problem scores and scores on the Internalizing and Externalizing factors were obtained for each subject, and the raw scores were converted to T-scores. The Social Competency scale was not used in this study.

Research on the CBC has provided evidence supporting short-term and long-term test-retest reliability and interparent agreement for the 12 scales, the Internalizing and Externalizing factors and the total behaviour problem scores (Achenbach, 1978; Achenbach & Edelbrock, 1979; Achenbach & Edelbrock, 1981). In addition, highly significant differences between normal and clinic-referred children on all of the scales support the criterion-related validity of this measure (Achenbach, 1978; Achenbach & Edelbrock, 1979).

Home observation data. Observers coded mother-child interaction in the home during four 40-minute observation periods. These observation periods were scheduled as closely together as possible, with the stipulation that no more than one could occur per day, and that they not be scheduled at the same time each day. During the observation period, the mother was instructed to ignore the observers and to interact with her child as she normally would, within the following constraints: that she limit her activities to two adjoining rooms; that she not permit any other family members or visitors in the room area; and that she refrain from reading, watching television, or playing commercial games with her child during the observation period.

Observers selected a position in the home that enabled them to code interactions in the two adjoining rooms. They were equipped with a cassette tape recorder and an earphone, which enabled them to hear pre-recorded 30-second intervals during the observation. Data were collected in consecutive 30-second intervals, with 1-minute rest periods every 10 minutes.

Three parent behaviours and two child behaviours served as behavioural dependent measures for this study. The parent behaviours were rewards plus attends, beta commands (commands for which there was no opportunity for compliance) and contingent attention (rewards or attends delivered within 5 seconds of child compliance). Rewards plus attends and beta commands were both expressed as rates per minute. Contingent attention represented the percentage of positive parental attention given contingent on child compliance.

The child behaviours included compliance with alpha commands plus warnings (commands and warnings for which an opportunity for compliance existed), and child inappropriate behaviour. Child behaviours were expressed as percentages: percentage of child compliance with alpha commands plus warnings; and percentage of 30-second intervals during which inappropriate behaviour was scored.

Assessments of the reliability of the coding system have shown adequate test-rest reliability (Peed et al., 1977) and an average interobserver percentage agreement of 75% (Forehand & Peed, 1979). With respect to the validity of the coding system, the system had been shown to discriminate rates of compliance in clinic and non-clinic children (Forehand et al., 1975; Griest et al., 1980), and is also sensitive to treatment effects in clinic-referred children (e.g., Forehand, Griest & Wells, 1979; Forehand, Sturgis, McMahon, Aguar, Green, Wells & Breiner, 1979; Peed et al., 1977).

### Procedure

Initial telephone contact. A number of therapists and agencies in the Greater Vancouver area who offer marital counselling were contacted in an effort to obtain their co-operation in referring maritally distressed clients to the study. Therapists who agreed to participate in the study were asked to inform couples who had sought marital counselling and

who also had a child 3 to 7 years of age that mothers were needed for a research study on mother-child interaction. If the mother expressed an interest in the study or wanted more information, the therapist obtained her permission to have the author contact her by telephone to outline the requirements of the study. Mothers who were solicited through newspaper and community centre advertisements were instructed to contact the author by telephone.

During the initial telephone contact, the mother was informed that the purpose of the study was to examine mother-child interaction and mothers' perceptions of themselves and their families. She was told that she would be required to complete some questionnaires concerning her perceptions of herself and her family, and that she might be requested to schedule four times when a research assistant could come to her home to observe her and her child for a brief period. Payment for participation in the study was outlined. This consisted of a \$5.00 stipend for completion of the questionnaires and \$10.00 for completion of the home observations. If the mother agreed to participate in the study, demographic data were collected and an initial interview was scheduled.

Initial interview and screening procedure. The initial interviews were originally planned to be held in the Department of Psychology. Because many of the mothers lived a considerable distance from the campus and were reluctant to come in, it was decided that the initial interviews would be held in the

mothers' homes. Initial interviews for ten of the mothers were held on campus (four of the maritally distressed and six of the non-distressed mothers) and the remainder were held in the mothers' homes. During the initial interview, the mother was again briefed regarding the requirements of the study and a consent form was signed indicating that she understood and agreed to those requirements (see Appendix I). The mother was then required to complete the various self-report measures presented earlier (DAS, BDI, STAI, PRF, PAT, Becker and CBC) under supervision.

Once the mother had completed the DAS, this inventory was immediately scored to determine whether she qualified for the study. As previously noted, the criterion for the selection of maritally distressed mothers was a DAS score at or below the cut-off point of 97, and for maritally non-distressed mothers a score at or above 107. Four home observations times were scheduled with those mothers who qualified for the study. Mothers who did not qualify for the study were paid \$5.00 for completing the questionnaires and were informed that, because of certain selection criteria, home observations were not necessary. Nine women obtained DAS scores between these cut-off points and thus did not qualify for the study.

Collection of home observation data. Four 40-minute observations of mother-child interaction were made in the home. An average of 12.3 days (Range: 3-52 days) elapsed between the first and last observation for the maritally distressed group

and 9.1 days (Range: 3-34 days) for the non-distressed group. These differences were not statistically significant,  $t(38) = 1.10$ ,  $p > .10$ . Reliability checks were obtained on 23% of the home observations by having a calibrating observer record the 40-minute observation session with the primary observer. A split earplug device (McQueen, 1975) was used to synchronize recording intervals for the two observers.

Reliability coefficients were determined for each of the coded behaviours by calculating an intraclass correlation coefficient (Winer, 1971) between the observer's and calibrating observer's total session scores for each behaviour. Hartmann (1977) has recommended that this method be used when more than two observers function as data collectors. In a review article on the uses of the intraclass correlation coefficient in assessing interrater reliability, Shrout and Fleiss (1979) specify guidelines for selecting the appropriate form of the intraclass correlation coefficient. This coefficient provides a ratio of the variance of interest over the sum of the variance of interest plus error. They describe three cases where different forms of the intraclass correlation coefficient are used: 1) where each subject is rated by a different set of  $k$  observers, randomly selected from a larger population of observers; 2) where a random sample of  $k$  observers is selected from a larger population and each observer rates each subject; and 3) where each subject is rated by each of the same  $k$  observers, who are the only observers of interest. In the present investigation, each subject was rated by a different set of  $k$  observers, selected from a larger population of observers;

thus, the model corresponding to case (1) was used. This corresponds to a one-way random effects analysis of variance design. From this MS between subjects and MS within subjects can be derived. In this case, the effects due to observers, to the interaction between observer and subject and to random error can not be separated; these effects represent MS within subjects. The following formula is used in calculating the intraclass correlation coefficient (Winer, 1971):

$$r = \frac{\text{MS between} - \text{MS within}}{\text{MS between} + (k-1) \text{MS within}}$$

where  $k$  is the number of observers rating each subject,

MS between is the mean square between subjects

and MS within is the the mean square within subjects.

The intraclass correlation coefficients that were calculated for each measure of the parent and child behaviour are as follows: rewards plus attends,  $r = .93$ ; beta commands,  $r = .88$ ; contingent attention,  $r = .48$ ; child compliance to alpha commands plus warnings,  $r = .73$ ; and child inappropriate behaviour,  $r = .85$ .

Debriefing mothers and therapists. All mothers who participated in the study were contacted by telephone following their involvement in the study and given individual feedback. For those who had participated in the home observations, this feedback consisted of information relating to the mother's and child's behaviour during the home observations as well as a summary of the mother's responses to the questionnaires. For



those who did not meet the selection criteria of the study, feedback was provided on the questionnaire data. Maritally distressed mothers who were referred by therapists were given the option of having this information forwarded to their therapist. If they decided to do so, a consent form was signed (see Appendix J), the therapist was contacted by telephone and the information given. Six women requested that the feedback information be given to their therapists. Maritally distressed mothers who were not in therapy were provided with names and phone numbers of marital therapists in the Vancouver area.

Upon completion of the study, the mothers who participated and the therapists who had agreed to refer maritally distressed clients to the study were sent a report outlining the hypotheses and results of the study.

## RESULTS

Maritally Distressed and Non-Distressed Group Differences

Parent verbal report measures. Although the maritally distressed and non-distressed groups were selected on the basis of their scores on a marital adjustment inventory, the two groups were compared on their DAS scores to ensure that the difference was statistically significant. A t-test revealed that the maritally distressed group had significantly lower scores on the DAS, indicating greater marital dysfunction,  $t(38) = -13.49$ ,  $p < .00001$ .

Separate Hotelling's  $T^2$  analyses were conducted on each of the five sets of dependent measures: maternal personal adjustment, maternal personality, maternal perception of child adjustment, child behaviour and parent behaviour. A Hotelling's  $T^2$  analysis of the personal adjustment measures of depression (BDI) and anxiety (STAI) indicated that the maritally distressed group perceived themselves as having significantly more severe personal adjustment problems,  $F(2,37) = 13.17$ ,  $p < .00005$ . In order to determine whether these differences held for both depression and anxiety, multiple comparisons were conducted. To ensure that the problem of escalating Type 1 error rate did not occur for these comparisons, the experiment-wise error rate was set at  $\alpha = .05$ . Using the Bonferroni procedure (Larzelere &

Mulaik, 1977) the critical significance level for the individual t-tests was computed as  $.05/2 = .025$ . Mothers in the maritally distressed group perceived themselves as more depressed,  $t(38) = 3.39$ ,  $p < .005$ , and more anxious,  $t(38) = 5.01$ ,  $p < .0001$ , than the maritally non-distressed group. The means and standard deviations of the marital and personal adjustment measures are presented in Table 9.

Results from a Hotelling's  $T^2$  analysis of the personality measures (PRF) revealed no significant difference between the maritally distressed and non-distressed groups,  $F(15,24) = 0.75$ ,  $p > .50$ . The means and standard deviations of the PRF scales are presented in Table 10.

The parent perception of child adjustment measures for the maritally distressed and non-distressed groups were compared using a Hotelling's  $T^2$  analysis. These measures included the sum of three scales of the PAT (Home Attitude Scale, Behavior Rating Scale, Adjective Checklist), the CBC, and the three factors of the Becker (Less Withdrawn and Hostile, More Aggressive, More Conduct Problems). The results indicated that mothers in the maritally distressed group perceived their children as having significantly more problems than mothers in the maritally non-distressed group,  $F(5,34) = 4.09$ ,  $p < .005$ . Again, the experiment-wise error rate for the multiple comparisons was set at  $\alpha = .05$ . Using the Bonferroni procedure the critical significance level for each t-test was  $.05/5 = .01$ . Using this criterion, the results indicated that mothers in the maritally distressed group perceived their children as having significantly more behaviour problems on the PAT,  $t(38) = 3.70$ ,

Table 9

Means and Standard Deviations of the Marital and Personal  
Adjustment Measures for Maritally Distressed and Non-Distressed  
Mothers

Variable	Maritally Distressed		Maritally Non-Distressed	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Dyadic Adjustment Scale	83.50	9.12	118.15	6.98
Beck Depression Inventory	8.90	7.55	2.80	2.82
State-Trait Anxiety Inventory	44.85	10.47	31.70	5.30

Note. n = 20 for each group.

Table 10

Means and Standard Deviations of Scales of the Personality  
Research Form for the Maritally Distressed and Non-Distressed  
Mothers

Scale	Maritally Distressed		Maritally Non-Distressed	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Achievement	13.05	2.85	12.35	2.74
Affiliation	15.15	2.98	15.75	1.74
Aggression	6.05	3.63	4.25	2.47
Autonomy	7.00	2.15	6.40	2.87
Dominance	8.90	4.78	8.40	3.88
Endurance	11.15	3.56	11.70	4.10
Exhibition	8.45	4.71	8.15	4.69
Harmavoidance	11.85	4.08	12.90	4.62
Impulsivity	9.80	3.74	8.00	3.80
Nurturance	15.45	2.35	16.20	2.01
Order	10.70	4.42	11.65	4.54
Play	8.65	3.59	10.05	3.15
Social Recognition	8.75	3.35	8.40	3.79
Understanding	14.05	2.30	12.90	3.60
Infrequency	0.65	0.99	0.45	0.89

Note. n = 20 for each group.

$p < .001$ , and perceived their children as being significantly more aggressive on the More Aggressive factor of the Becker,  $t(38) = 3.99$ ,  $p < .0001$ . See Table 11 for the means, standard deviations and results of the multiple comparison analyses of the parent perception of child adjustment measures.

In order to determine whether the maritally distressed and non-distressed mothers differed in their perception of overcontrol and undercontrol problems in their children, scores on the Internalizing (a measure of overcontrolled behaviour) and Externalizing (a measure of undercontrolled behaviour) factors of the CBC were compared for the two groups. Using the Bonferroni procedure, the experiment-wise error rate was set at  $\alpha = .05$  and the critical significance level for each t-test was computed as  $.05/2 = .025$ . The results revealed that mothers in the maritally distressed group perceived their children as having significantly more undercontrol problems,  $t(38) = 3.06$ ,  $p < .005$ . Using this criterion there were no significant differences between the groups on the Internalizing factor,  $t(38) = 2.09$ ,  $p > .025$ . Although there were not enough girls in the sample to permit an examination of differences in the maritally distressed and non-distressed mothers' perceptions of overcontrol and undercontrol problems in their daughters, there were enough boys in the sample to permit such analyses. Mothers' scores on the Internalizing and Externalizing factors of the CBC were compared for the boys. Using the Bonferroni procedure, the experiment-wise error rate was set at  $\alpha = .05$  and the critical significance level for each t-test was computed as  $.05/2 = .025$ . The results indicated that, compared to mothers in the non-

distressed group, mothers in the maritally distressed group perceived their sons as having significantly more problems of undercontrol,  $t(26) = 3.22, p < .005$ . There was no significant difference between the groups on the Internalizing factor,  $t(26) = 1.93, p > .05$ .

Behavioural data. A Hotelling's  $T^2$  analysis was computed for the two child behavioural measures: compliance to alpha commands plus warnings and inappropriate behaviour. Although the results were not statistically significant at the conventional .05 level they did suggest a trend for children in the maritally distressed group to show more deviant behaviour than children in the maritally non-distressed group,  $F(2,37) = 2.95, p = .06$ . The established convention in psychological research is to perform multiple comparisons only when the results of multivariate analysis have met  $\alpha = .05$  level of significance. Although the results of the multivariate analysis fell just short of the .05 level of significance ( $p \leq .06$ ), a decision was made to proceed with the multiple comparison analyses given that the significance level was very close to commonly accepted levels and that the likelihood of making a Type II error with this small sample size was appreciable. It should be emphasized, however, that the results from the multiple comparisons, as with the results from the multivariate analysis, must be viewed as merely suggestive findings that require replication. For a multiple comparison analysis, the experiment-wise error rate was also set at  $\alpha = .05$ . Using the Bonferroni procedure, the

Table 11

Means, Standard Deviations and Results from t-tests Performed on  
the Parent Perception of Child Measures for Maritally Distressed  
and Non-Distressed Mothers

Variable	Maritally Distressed		Maritally Non-Distressed		<u>t</u>	<u>p</u>
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>		
Parent Attitudes Test	46.00	12.49	30.20	14.35	3.70	.001
Child Behaviour Checklist	58.50	8.98	52.10	9.35	2.21	.033
Becker Bipolar Adjective Checklist						
Less Withdrawn and Hostile	20.70	7.93	24.90	6.50	-1.83	.075
More Aggressive	-0.15	7.15	-8.40	5.85	3.99	.000
More Conduct Problems	-1.80	8.06	-3.70	6.62	0.81	.420

Note. n = 20 for each group.



critical significance level for each t-test was computed as  $.05/2 = .025$ . The results for the measure of child compliance to alpha commands approached significance,  $t(38) = -2.20$ ,  $p > .025$ , suggesting a trend for children from the maritally distressed group to be less compliant to alpha commands plus warnings than children from the non-distressed group. There was no significant difference between the groups for the measure of inappropriate behaviour,  $t(38) = 1.87$ ,  $p > .05$ . The means, standard deviations and results of the statistical analyses for the child behavioural measures are presented in Table 12.

The two parent behavioural measures of rewards plus attends and beta commands were analyzed using a Hotelling's  $T^2$  analysis. Contingent attention was not included in this analysis since this measure was not independent of the measure of rewards plus attends. The results of this analysis failed to reach statistical significance at the conventional .05 level but did reveal a trend for maritally distressed mothers to show less appropriate parenting behaviour than maritally non-distressed mothers,  $F(2,37) = 3.01$ ,  $p \leq .06$ . Again, in the interest of avoiding a Type II error, multiple comparisons were performed even though the results of the multivariate analysis fell just short of the conventional .05 level of significance. Accordingly, results from both the multivariate analysis and the multiple comparisons must be viewed as merely suggestive and requiring replication. The experiment-wise error rate was set at  $\alpha = .05$  for the multiple comparison analysis. Using the Bonferroni procedure, the critical significance level for each t-test was computed as  $.05/2 = .025$ . The results for the measure

Table 12

Means, Standard Deviations and Results from t-tests Performed on  
the Two Child and Three Parent Behavioural Measures for the  
Maritally Distressed and Non-Distressed Mothers

Variable	Maritally Distressed		Maritally Non-Distressed		<u>t</u>	<u>p</u>
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>		
Compliance to Alpha Commands plus Warnings <sup>1</sup>	87.46	10.48	93.38	5.90	-2.20	.034
Inappropriate Behaviour <sup>1</sup>	5.38	3.82	3.34	3.04	1.87	.070
Rewards plus Attends <sup>2</sup>	0.52	0.27	0.83	0.55	-2.22	.033
Beta Commands <sup>2</sup>	0.83	0.51	0.87	0.42	-0.29	.775
Contingent Attention <sup>2</sup>	4.20	2.36	5.03	3.55	-0.88	.387

Note. n = 20 for each group.

<sup>1</sup> Child behaviour

<sup>2</sup> Parent behaviour

of rewards plus attends approached significance,  $t(38) = -2.22$ ,  $p > .025$ , suggesting a trend for maritally distressed mothers to give fewer rewards and attends than the non-distressed mothers. There was no significant difference between the groups on the measure of beta commands  $t(38) = -0.29$ ,  $p > .50$ . A t-test comparing the maritally distressed and non-distressed groups on the percentage of contingent attention also revealed no significant difference between the two groups,  $t(38) = -0.88$ ,  $p > .25$ . The means, standard deviations and results of the multiple comparison analyses for the parent behavioural measures are presented in Table 12.

### Predictors of Marital Adjustment

Since the scores on the measures of maternal personal adjustment and maternal perception of child adjustment were found to differ for the maritally distressed and non-distressed groups, and there was a trend in that direction for the child and parenting behaviours, a series of step-wise discriminant function analyses was performed on these sets of variables to determine the best predictors of marital adjustment. In order to reduce the number of variables entered into the discriminant analysis, only those measures of personal adjustment and perception of child adjustment that were found to be significant and those parent and child measures found to be at least marginally significant via the Bonferroni procedure were selected for inclusion in the analyses. Variables that met this selection criterion for each set were: (1) Maternal personal

adjustment: BDI and STAI; (2) Maternal perception of child adjustment: PAT, and the More Aggressive factor of the Becker; (3) Child Behaviour: compliance to alpha commands plus warnings; and (4) Parent Behaviour: rewards plus attends.

In order to determine the best predictors within each of the sets of maternal personal adjustment and maternal perception of child adjustment, two step-wise discriminant function analyses were performed before proceeding to the overall analysis.

A step-wise discriminant function analysis of the maternal personal adjustment measures of anxiety and depression indicated that anxiety was the better discriminator of marital distress/non-distress,  $F(1,38) = 25.11$ ,  $p < .00001$ . The further inclusion of depression in the discriminant analysis did not make a significant contribution to the discrimination of the maritally distressed and non-distressed groups,  $F(1,38) = 1.14$ ,  $p > .25$ .

A step-wise discriminant function analysis of the parent perception of child adjustment measures indicated that the More Aggressive Factor of the Becker was the better discriminator of marital distress/non-distress,  $F(1,38) = 15.95$ ,  $p < .0005$ . The PAT did not make a further significant contribution to the discrimination of marital distress/non-distress,  $F(1,38) = 2.54$ ,  $p > .10$ .

All four sets of variables (two measures of maternal personal adjustment, two measures of parent perception of child adjustment and one measure of parent behaviour and child behaviour) were then entered into a step-wise discriminant

analysis to determine the best predictors of marital distress/non-distress. The results indicated that anxiety was the best discriminator variable of marital distress/non-distress,  $F(1,38) = 25.11$ ,  $p < .00001$ . This variable on its own resulted in the correct classification of 75% of the cases into maritally distressed and non-distressed groups. The inclusion of the More Aggressive Factor of the Becker, a measure of parent perception of child adjustment, provided non-redundant information which resulted in a significant improvement in the discrimination of distressed and non-distressed marriages,  $F(1,38) = 4.27$ ,  $p < .05$ . This variable in conjunction with maternal perception of anxiety resulted in the correct classification of 77.5% of the cases into maritally distressed and non-distressed groups. Neither the parent nor the child behavioural measures nor the remaining measures of parent perception of child adjustment and parent personal adjustment contributed significantly to further discrimination.

A second question of theoretical interest was the degree to which child and parent variables were able to predict marital adjustment. Unlike other studies in the research literature, child behaviour in this study was assessed by two sources (as perceived by the mother and as measured by an independent observer), thus allowing for a comparison of the unique relationship of each to marital adjustment. As maternal perception of child adjustment is likely to be influenced by both maternal personal adjustment and child behaviour (Griest et al., 1980) it was predicted that maternal perception of child adjustment would be more closely related to marital adjustment

than child behaviour measured by an independent observer.

The two measures of parent perception of child adjustment (PAT and the More Aggressive factor of the Becker), the child behaviour measure (compliance to alpha commands plus warnings) and the parent behaviour measure (rewards plus attends) were entered into a step-wise discriminant function analysis to determine their relative predictive power. The More Aggressive factor of the Becker was selected as the best discriminating variable of marital distress/non-distress,  $F(1,38) = 15.95$ ,  $p < .0005$ . This variable resulted in the correct classification of 67.5% of the cases into maritally distressed and non-distressed marriages. Neither the PAT nor the child and parent behavioural measures contributed significantly to the discrimination.

#### Relationship between Form of Maternal Perception of Child Behaviour Problem, Maternal Personal Adjustment, and Child Behaviour

Correlations between the type of child behaviour problem perceived by the mother (overcontrolled vs undercontrolled), her own maternal personal adjustment and the child's actual behaviour revealed some interesting patterns. Within the maritally distressed group, the more withdrawn a mother perceived her child to be (the Less Withdrawn factor of the Becker), the more likely she was to rate herself as depressed,  $r = -.40$ ,  $p < .05$ , and anxious,  $r = -.52$ ,  $p < .01$ . Similarly, the more overcontrolled she perceived her child to be (Internalizing factor of the CBC), the more depressed,  $r = .53$ ,  $p < .01$ , and anxious,  $r = .65$ ,  $p < .001$ , she rated herself.

Neither the Withdrawn factor nor the Internalizing factor was significantly related to measures of observed child behaviour.

In contrast, perception of her child as aggressive (More Aggressive factor of the Becker), having conduct problems (More Conduct Problems factor of the Becker) or as having problems of undercontrol (Externalizing factor of the CBC) was not significantly related to the mother's perception of herself as depressed or anxious (correlations ranged from  $r = -.007$  to  $r = .31$ ). However, perception of her child as aggressive was significantly related to observations of the child as showing more inappropriate behaviour,  $r = .52$ ,  $p < .01$ , and less compliance,  $r = -.46$ ,  $p < .05$ .

Results for mothers in the maritally non-distressed group were less consistent. The more overcontrolled she saw her child (Internalizing factor of the CBC), the more anxious she rated herself,  $r = .49$ ,  $p < .01$ . Perception of her child as aggressive (More Aggressive factor of the Becker), having conduct problems (More Conduct Problems factor of the Becker), or being undercontrolled (Externalizing factor of the CBC), was not significantly related to maternal personal adjustment (correlations ranged from  $r = .03$  to  $r = .22$ ) or to child behavioural measures (correlations ranged from  $r = .07$  to  $r = -.26$ ).

## DISCUSSION

The purpose of this study was to investigate the relationship of marital adjustment to maternal personal adjustment and personality, maternal perception of child adjustment, maternal parenting behaviour and child behaviour. Two groups of mothers and their children participated in the study: mothers in the maritally distressed group rated themselves as experiencing significant distress in their marital relationship, whereas mothers in the maritally non-distressed group rated themselves as having satisfactory marital relationships. Self-report measures assessing marital adjustment, personal adjustment, personality and child adjustment were completed by the mothers. In addition, maternal parenting behaviour and child behaviour were assessed in home observations.

Although half of the mothers in the maritally distressed sample were involved in marital therapy and the other half were not, there were no differences between these two subgroups on any of the indices relevant to this study. These two subgroups did not differ significantly in terms of demographic variables, measures of marital adjustment, maternal personal adjustment and personality, maternal perception of child adjustment or parent and child behaviour. Accordingly, the two subgroups were treated as a single group of maritally distressed mothers. The inclusion of maritally distressed mothers who were involved in marital therapy as well as those who were not involved in therapy does, however, permit greater confidence to be placed in the



generality of the results of this study. The findings may be generalized to maritally distressed mothers, regardless of their therapeutic involvement.

In terms of personal adjustment, mothers in the maritally distressed group rated themselves as more anxious and depressed than mothers in the non-distressed group. From a clinical perspective, it makes sense that a woman who perceives her marital relationship as having severe problems also would experience disappointment, insecurity, dysphoria, discouragement and many of the other symptoms of depression and anxiety. The relationship between anxiety and marital distress found in this study is consistent with the results of other research studies in which these two variables have been related (Lundgren et al., 1980; Rogers et al., 1970). Although the findings in this study for depression are congruent with some previous research results (e.g., Ilfeld, 1977; Rickard et al., 1982; Rounsaville et al., 1978), they are discrepant with others (Coleman & Miller, 1975; Weiss & Aved, 1978). The reasons for this discrepancy are not readily apparent. The instrument used to measure depression does not appear to be related to the outcome since the BDI was used in studies where a relationship was found between marital satisfaction and depression (e.g., Rickard et al., 1982, the present study) as well as in one study where no relationship was found (Coleman & Miller, 1975). The Coleman and Miller (1975) and Weiss and Aved (1978) studies employed a correlational design rather than the quasi-experimental design used in this study. However, an examination of the correlation between marital satisfaction and depression for the maritally distressed

group in this sample reveals a significant negative correlation ( $r = -.47$ ), indicating that the difference in methodology between the studies does not account for the discrepancy in the research findings. At this point, the bulk of the evidence supports a relationship between marital satisfaction and depression in women; reasons for the lack of support for this relationship in some studies remain unclear.

Although significant correlations between marital satisfaction and various personality traits have been found in a number of studies in the literature (e.g., Bentler et al., 1978; Eysenck, 1980; Murstein & Glaudin, 1966), many of the studies have been flawed by methodological problems. The use of univariate rather than multivariate statistics as well as the lack of consistency and the questionable validity of the criteria used to discriminate distressed and non-distressed marriages are common methodological problems found in this area. These problems were addressed in this study by using measures of marital adjustment and personality that have demonstrated reliability and validity, and by using multivariate rather than univariate statistics to control for the likelihood of finding significant differences by chance. With this more rigorous methodology, no personality trait differences were found between maritally distressed and non-distressed mothers. This lack of statistically significant findings is discrepant with the results obtained by Eysenck and his colleagues (Eysenck, 1980; Eysenck & Wakefield, 1981; Zaleski & Galkowska, 1978) who also employed more rigorous methodology. They found small but significant negative correlations between marital satisfaction

and the psychoticism and neuroticism subscales of the Eysenck Personality Questionnaire for women. However, when personality was combined with background variables, social attitudes, sexual attitudes and sexual behaviour in predicting marital satisfaction, the wife's personality variables accounted for only 8% of the variance in marital satisfaction (Eysenck & Wakefield, 1981). This relatively small percentage of variance accounted for, along with the low correlations between marital satisfaction and personality obtained in Eysenck's studies, suggests that the relationship between marital satisfaction and personality is a relatively weak one. The limited sample size in the present study ( $n=40$ ) may not have provided enough statistical power to detect this relationship.

In terms of parent perception of child adjustment, mothers in the maritally distressed group perceived their children as more poorly adjusted than mothers in the non-distressed group. These findings are congruent with results found in other studies of non-clinic referred children (e.g., Ferguson & Allen, 1978; Klein & Shulman, 1980; Whitehead, 1979). There have been some reports in the research literature of an association between child problems involving overcontrol (e.g., depression, anxiety, withdrawal) and marital adjustment (e.g., Porter & O'Leary, 1980; Schwarz & Getter, 1980; Whitehead, 1979), but an association between child problems of undercontrol (e.g., aggression, conduct problems) and marital adjustment has been reported more consistently (e.g., Emery & O'Leary, 1982; Oltmanns et al., 1977; Rutter, 1971). Results from this study provide additional support for the relationship between marital

adjustment and problems of undercontrol in children. On scales that were designed to measure problems of undercontrol in children (More Aggressive factor of the Becker, More Conduct Problems factor of the Becker and Externalizing factor of the CBC), mothers in the maritally distressed group perceived their children as having more problems on two out of three of these measures than did mothers in the maritally non-distressed group. On scales that were designed to measure parent perception of overcontrol in children (Less Withdrawn factor of the Becker and the Internalizing factor of the CBC), the differences between the groups approached statistical significance, but did not meet the specified criterion for significance.

It has been suggested that boys and girls may respond differently to marital problems in that girls may be more likely to respond to marital discord with problems of overcontrol, whereas boys may respond with undercontrolled behaviour. The limited number of girls in this study (6 per group) prohibited a meaningful statistical analysis of group differences for girls, but an analysis of the boys' scores on the Internalizing and Externalizing factors of the CBC provided support for this hypothesis for boys. The results indicated that the maritally distressed mothers perceived their sons as having significantly more problems of undercontrol than did the non-distressed mothers, but there were no differences between the groups in their perception of behaviour problems of overcontrol.

In a recent review of the relationship between marital and child problems, Emery (1982) reported that one of the most common methodological problems in this area was the reliance on

a single judge to rate both marital and child adjustment. This creates a problem of non-independent data. If the mother is required to rate both her own marital adjustment and her child's adjustment, any perceptual bias that she may have could influence both ratings, thus creating a stronger relationship between marital and child adjustment. If, for example, the mother is inclined to present herself and her family in a socially desirable way, the relationship between her ratings of her marriage and her child may be mediated by social desirability. Indeed, Robinson and Anderson (Note 3) reported that a significant correlation between mothers' ratings of marital and child adjustment became non-significant when the effects of social desirability were partialled out. As marital distress has been shown to be related to depression (e.g., Ilfeld, 1977; Rickard et al., 1982), a maritally distressed mother may experience a negative perceptual set, a problem commonly found in depressed individuals. Beck (1976) reports that depressives are particularly prone to selectively perceive and overinterpret negative events while failing to pay attention to positive events. If a mother perceives her marital relationship as problematic and feels depressed (or vice versa), she may be more likely to attend selectively to other negative events (e.g., seeing her son play aggressively with a friend) and ignore more positive events (e.g., seeing her son playing cooperatively with a friend). Hence, she may be more likely to rate other areas in her life (e.g., her son's adjustment) as problematic because of her perceptual bias. Forehand and his colleagues (Griest et al., 1979, 1980; Rickard et al., 1981)

have reported evidence of such a bias in mothers of clinic-referred children. They found that mothers of clinic-referred children perceived themselves as having more personal adjustment problems (i.e., depression and anxiety) than did mothers of children who were not clinic-referred. Moreover, for the mothers of clinic-referred children, maternal perception of child adjustment was best predicted by actual child behaviour as measured by independent observers as well as the mothers' own personal adjustment.

Emery (1982) has suggested that one way of avoiding this problem of non-independent data is to have different judges rate the child's behaviour in the same setting. When judges rate the child's behaviour in two different settings (e.g., the teacher rates the child at school and the mother rates the child at home) a difference in ratings may be due to a difference in the child's behaviour in those two settings as well as a difference in raters' perceptions of the child's behaviour. As marital problems may be most likely to have an influence on the child's behaviour at home, independent ratings of the child's behaviour in the home setting would probably be best. This study was designed to include independent behavioural ratings of the child's behaviour in the home. In addition, obtaining measures of maternal perception of child adjustment enabled a comparison to be made between independent and non-independent sources of data on child behaviour.

Whereas the results from the maternal perception of child adjustment measures clearly indicated that maritally distressed mothers perceived their children as more poorly adjusted, the

results from the child behavioural measures were less clear. Although the results obtained from both the multivariate statistical analysis and the Bonferroni comparisons were in the expected direction, the findings from the multivariate analysis fell just short of the conventional .05 level of statistical significance and the child compliance measure approached significance. This lack of statistical significance makes an interpretation of these findings difficult. At least two interpretations are possible: 1) the trends may be purely chance findings that would not be replicated; or 2) the trends may actually reflect real differences between the groups. If the former interpretation were true, this would indicate that maritally distressed mothers do not perceive their children's behaviour accurately. They perceive their children as having adjustment problems although the children are no less compliant and show no more inappropriate behaviour than children of maritally non-distressed mothers. Although this interpretation may indeed be correct, the small sample size and corresponding limited statistical power in this study provide a cogent argument for the second interpretation. Given that all the differences were in the expected direction, it seems likely that the children from the maritally distressed marriages were in fact less compliant than the children from the non-distressed marriages, but that the lack of statistical power in the study prohibited this trend from attaining statistical significance. At this point, however, this trend must be viewed as merely suggestive and requiring replication. If the trend does reflect a true difference then this would indicate that not only do

mothers in distressed marriages perceive their children as being more poorly adjusted than do mothers in non-distressed marriages, but the children also appear to be less compliant. However, the strength of these relationships is clearly not equal. The relationship between marital adjustment and maternal perception of child behaviour is much stronger than the relationship between marital adjustment and actual child behaviour. There are a number of alternative explanations for this difference.

Within the psychological literature it is common to find weak relationships between self-reported ratings of attitudes and behaviours and measures of behaviour obtained by independent observers. In particular, this lack of correspondence has been found in the relationship between parent perception of child behaviour and child behaviour as assessed by independent observers. Forehand et al. (1979) correlated measures of parent perception of child adjustment (PAT, Becker) with measures of child behaviour obtained by independent observers (child compliance and child inappropriate behaviour) in clinic-referred children and their mothers, and found no significant correlations between the parent perception measures and the behavioural measures. Some of the explanations that have been offered for this lack of correspondence are: 1) that questionnaire measures sample parent perception of child behaviour over a long period of time whereas observational measures sample behaviour over a short period of time; 2) that questionnaire measures sample a much broader range of child behaviour than do behavioural measures; 3) that the instructions



for the observational sessions (limited activities, no other family members present) even further limit the range of behaviour that is sampled; and 4) that the presence of observers themselves may change the parent-child interaction. In the present investigation, the range of behaviour that was sampled in the observations obviously did not reflect the scope of the problems sampled in the parent perception of child adjustment questionnaires. The two measures of child behaviour that were utilized are primarily measures of undercontrolled behaviour in children. The difference between the groups on parent perception of overcontrolled behaviour approached significance indicating that many of the behaviours that were seen as problematic by maritally distressed mothers were problems of overcontrol. These problems would not have been as readily identified in the behavioural coding system.

The difference between the strength of the relationship for marital adjustment and maternal perception of child adjustment and the strength of the relationship for marital adjustment and child behaviour also may be due to problems of perceptual bias. Perhaps the maritally distressed mothers do develop a negative perceptual set and overattend to problem behaviours in their children. Alternatively, or perhaps in addition, mothers in the non-distressed group may present both their marriages and their children in a socially desirable way, so the ratings of both are artificially high. The step-wise discriminant function analyses suggest that problems of perceptual bias may indeed be operating. Results from the discriminant analyses revealed that maternal anxiety resulted in the correct classification of 75%

of the cases into maritally distressed and non-distressed groups. The addition of the measure of maternal perception of child aggressiveness made a significant contribution to predicting marital distress, but it resulted in only a 2.5% increase in discriminating power. Thus, to a large extent, the measures of maternal personal adjustment and maternal perception of child adjustment provided redundant information. This would suggest that how the mother views the child's problems is more strongly related to how she views her own problems than it is to how she views her marriage.

Interestingly, mothers in the maritally distressed group who viewed their children as having problems of overcontrol (Internalizing factor of the CBC; Less Withdrawn factor of the Becker) also were likely to view themselves as depressed (correlation with Internalizing factor was  $r = .51$ ; correlation with Less Withdrawn factor was  $r = -.40$ ) and anxious (correlation with Internalizing factor was  $r = .64$ ; correlation with Less Withdrawn factor was  $r = -.52$ ). For the maritally non-distressed group the only significant correlation was between the Internalizing factor and anxiety ( $r = .49$ ). Although these results could indicate that maritally distressed mothers who are depressed and anxious have children who are also that way, it seems likely that the mother's perception of her child may be distorted by her own negative feelings about herself. Perception of undercontrolled behaviour, however, did not appear to be related to maternal personal adjustment. Mothers who perceived their children as aggressive (More Aggressive factor of the Becker) were not more likely to see themselves as depressed or

anxious. In fact, for mothers in the maritally distressed group, the more aggressive they perceived their children, the more inappropriate ( $r = .52$ ) and less compliant ( $r = -.46$ ) the child behaved in the home observations. This would suggest that the mothers' perception of their children as aggressive appears to be an accurate perception based on observations of the child's behaviour. Perception of the child as aggressive may be less subject to perceptual bias than perception of the child as overcontrolled.

Another reason for the discrepancy in the strength of the relationships between marital adjustment and maternal perception of child adjustment and between marital adjustment and child behaviour may be the problem of a biased sample. Children who had any history of clinic referral were excluded from this study in order that a sample of non-clinic referred children could be investigated. This selection criterion may have resulted in a non-representative sample of maritally distressed mothers and their children. Since an association between marital distress and child behaviour problems has been reported in numerous studies of clinic-referred children, the exclusion of clinic-referred children from the study may have resulted in a sample of less deviant children in the maritally distressed group. This would make it more difficult to detect child behaviour differences between the maritally distressed and non-distressed groups. Another sampling bias that might have been operating was that maritally distressed mothers with the most pervasive and severe difficulties may not have volunteered for the study.

Theorists from different orientations (e.g., family

systems, social learning and role theory) have hypothesized that parenting variables are important mediators in the relationship between marital and child problems. Johnson and Lobitz (1974) found that, indeed, marital adjustment was significantly correlated with the parenting variable of maternal negativity in a sample of clinic-referred boys. In this study the findings for the parent behaviour were not clear. Both the results from the multivariate statistical analysis and the results obtained from the Bonferroni procedure for the parent variable of rewards plus attends approached statistical significance but did not meet commonly accepted significance levels. Thus, although the data suggested that maritally distressed mothers gave fewer rewards and attends than non-distressed mothers, this interpretation must be viewed with caution and as requiring replication. Overall, the behavioural data, although not conclusive, suggested that maritally distressed mothers were less reinforcing with their children, and their children were less compliant. These findings make sense given that positive reinforcement has been shown to increase child compliance (cf. Forehand & McMahon, 1981; Patterson, 1982).

The other parenting variables examined in this study failed to effectively discriminate distressed from non-distressed mothers. The variable of contingent attention, although similar to rewards plus attends in that it is a measure of positive reinforcement, is a more complex variable to code. This complexity and resulting difficulty in coding is reflected in the low reliability obtained for this variable. The difficulty in coding this variable may have obscured any real differences

between the groups on this variable. The reason for the lack of differences between the groups on the variable of beta commands is less clear. Since depressed affect has been shown to be related to inhibited communication (e.g, McLean et al., 1973), it is possible that mothers experiencing depression may be less likely to give commands in general, including beta commands. The data from the maritally non-distressed group provide some support for this idea. Mothers who rated themselves as more depressed were less likely to give beta commands ( $r = -.38$ ). However, the opposite effect occurred for the maritally distressed group. Depressed affect in this group was positively correlated with beta commands ( $r = .44$ ). These results are curious and are not readily explainable.

The parenting variables did not contribute significantly to the discriminating power of the maternal personal adjustment and the maternal perception of child adjustment measures in predicting marital adjustment. Perhaps the addition of a measure of parental negativity, found to be significantly related to marital adjustment in the Johnson and Lobitz study (1974), would have provided a good complementary parenting variable to the measure of positive parenting behaviour that appeared to be related to marital adjustment in this study. Another parenting variable that might be explored with respect to its relationship to marital adjustment is consistency. It seems likely that marital problems may have an impact on how consistently a parent behaves. This, however, is a difficult behavioural measure to obtain since lack of consistency in parenting is usually only evident when repeated contact is made with parents.

This study has provided a comprehensive view of the maritally distressed mother and her child. Compared to a mother not experiencing marital problems, the maritally distressed mother is likely to perceive herself as having personal adjustment problems, specifically in the area of depression or anxiety. She also is likely to view her child as being more poorly adjusted and, if the child is a boy, may see these problems as being primarily ones of undercontrol. Although not conclusive, the evidence was suggestive that her parenting skills may be lacking in that she may provide less positive reinforcement and her child also may be less compliant. In sum, the marital problems are associated with a number of other problems in the family domain. Although the results of the study suggest that marital distress and other family problems are related, the directionality of these relationships cannot be determined. The correlational nature of this study does not permit an answer to the question of whether marital problems cause other family problems or vice versa. Only longitudinal research, in which the progression of family problems can be studied over time, will provide information on the issue of causality. Further research is also required to provide an equally comprehensive view of the maritally distressed father and his child.

In the past, behavioural assessments of marital functioning typically have been confined to an assessment of problems within the marital dyad. Although there is clearly a need to do a thorough assessment of problems within this area, the results of this study suggest the need to go beyond an assessment of the

marital dyad and examine the other family problems that may be associated with marital distress. The results of this study indicate that a mother presenting with marital difficulties will very likely experience problems of anxiety and depression as well. Based on previous research, it seems likely that the converse also will be true: women presenting with depression and anxiety may be having marital problems as well. Clinicians should be aware of the close relationship between these various adjustment problems. The results also suggest that the greater the mother's feelings of depression and anxiety, the more likely she will view her child as being depressed, anxious or withdrawn. She also is likely to perceive her child as being aggressive, hostile or having conduct problems. If possible, an assessment of these perceived problems along with an observation of the child's actual behaviour should be made to determine the extent of these problems in the family. Should her perceptions of the child be consistent with the child's actual behaviour, an assessment may be done to determine whether the mother has a deficit in parenting skills or whether she does indeed have the skills but experiences difficulty in using them. If the child's behaviour appears to be normal, then the focus of the assessment may be more appropriately directed at examining the mother's perceptual bias. Since child referral to a clinic is determined primarily by the mother's perception of child behaviour, a biased maternal perception of the child may result in the child being at risk for an inappropriate clinic referral. A biased perception of her child also may be indicative of a more general negative bias which may be affecting other facets of her life

such as social, occupational and familial relationships. Such a negative bias would place the mother at even greater risk for depression. It is clear from the results of this study that multiple areas of family functioning should be assessed in couples presenting with marital problems. Although there is a certain appeal in viewing marital problems as discrete, the results of this study indicate that it is essential to view marital distress in conjunction with both individual and familial problems.



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## APPENDICES

APPENDIX A  
Newspaper Advertisements

## APPENDIX B

## Dyadic Adjustment Scale

Scoring the Dyadic Adjustment Scale: The scoring key has been included within the questionnaire. To obtain a total score, sum the numbers that are circled.

Name \_\_\_\_\_

Circle one:

Male Female

## DYADIC ADJUSTMENT SCALE

Most persons have disagreements in their relationships. Please indicate below the approximate extent of agreement or disagreement between you and your partner for each item on the following list. (Place a checkmark ✓ to indicate your answer.)

	<u>Always Agree</u>	<u>Almost Always Agree</u>	<u>Occa- sionally Disagree</u>	<u>Fre- quently Disagree</u>	<u>Almost Always Disagree</u>	<u>Always Disagree</u>
1. Handling family finances	5	4	3	2	1	0
2. Matters of recreation	5	4	3	2	1	0
3. Religious matters	5	4	3	2	1	0
4. Demonstrations of affection	5	4	3	2	1	0
5. Friends	5	4	3	2	1	0
6. Sex relations	5	4	3	2	1	0
7. Conventionality (correct or proper behavior)	5	4	3	2	1	0
8. Philosophy of life	5	4	3	2	1	0
9. Ways of dealing with parents or in-laws	5	4	3	2	1	0
10. Aims, goals, and things believed important	5	4	3	2	1	0
11. Amount of time spent together	5	4	3	2	1	0
12. Making major decisions	5	4	3	2	1	0
13. Household tasks	5	4	3	2	1	0
14. Leisure time interests and activities	5	4	3	2	1	0
15. Career decisions	5	4	3	2	1	0

	<u>All the Time</u>	<u>Most of the Time</u>	<u>More Often Than Not</u>	<u>Occa- sionally</u>	<u>Rarely</u>	<u>Never</u>
16. How often do you discuss or have you considered divorce, separation, or terminating your relationship?	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
17. How often do you or your mate leave the house after a fight?	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
18. In general, how often do you think that things between you and your partner are going well?	<u>5</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
19. Do you confide in your mate?	<u>5</u>	<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
20. Do you ever regret that you married (or lived together)?	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
21. How often do you and your partner quarrel?	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
22. How often do you and your mate "get on each others' nerves"?	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
		<u>Every Day</u>	<u>Almost Every Day</u>	<u>Occa- sionally</u>	<u>Rarely</u>	<u>Never</u>
23. Do you kiss your mate?		<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
		<u>All of Them</u>	<u>Most of Them</u>	<u>Some of Them</u>	<u>Very Few of Them</u>	<u>None of Them</u>
24. Do you and your mate engage in outside interests together?		<u>4</u>	<u>3</u>	<u>2</u>	<u>1</u>	<u>0</u>
How often would you say the following events occur between you and your mate?						
	<u>Never</u>	<u>Less Than Once a Month</u>	<u>Once or Twice a Month</u>	<u>Once or Twice a Week</u>	<u>Once a Day</u>	<u>More Often</u>
25. Have a stimulating exchange of ideas	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>



	Never	Less Than Once a Month	Once or Twice a Month	Once or Twice a Week	Once a Day	More Often
26. Laugh together	0	1	2	3	4	5
27. Calmly discuss something	0	1	2	3	4	5
28. Work together on a project	0	1	2	3	4	5

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

- |     | Yes | No |                          |
|-----|-----|----|--------------------------|
| 29. | 0   | 1  | Being too tired for sex. |
| 30. | 0   | 1  | Not showing love.        |

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

0.	1.	2.	3.	4.	5.	6.
Extremely Unhappy	Fairly Unhappy	A Little Unhappy	Happy	Very Happy	Extremely Happy	Perfect

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

- |   |   |
|---|---|
| 5 | I want desperately for my relationship to succeed, and would go to almost any length to see that it does.         |
| 4 | I want very much for my relationship to succeed, and will do all I can to see that it does.                       |
| 3 | I want very much for my relationship to succeed, and will do my fair share to see that it does.                   |
| 2 | It would be nice if my relationship succeeded, but I can't do much more than I am doing now to help it succeed.   |
| 1 | It would be nice if it succeeded, but I refuse to do any more than I am doing now to keep the relationship going. |
| 0 | My relationship can never succeed, and there is no more that I can do to keep the relationship going.             |

## APPENDIX C

## Beck Depression Inventory

Scoring the Beck Depression Inventory: To obtain a total score, sum the numbers that are circled.

BECK INVENTORY

Name \_\_\_\_\_

Date \_\_\_\_\_

On this questionnaire are groups of statements. Please read each group of statements carefully. Then pick out the one statement in each group which best describes the way you have been feeling the PAST WEEK, INCLUDING TODAY! Circle the number beside the statement you picked. If several statements in the group seem to apply equally well, circle each one. Be sure to read all the statements in each group before making your choice.

1. 0 I do not feel sad.  
1 I feel sad.  
2 I am sad all the time and I can't snap out of it.  
3 I am so sad or unhappy that I can't stand it.
2. 0 I am not particularly discouraged about the future.  
1 I feel discouraged about the future.  
2 I feel I have nothing to look forward to.  
3 I feel that the future is hopeless and that things cannot improve.
3. 0 I do not feel like a failure.  
1 I feel I have failed more than the average person.  
2 As I look back on my life, all I can see is a lot of failures.  
3 I feel I am a complete failure as a person.
4. 0 I get as much satisfaction out of things as I used to.  
1 I don't enjoy things 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.

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10. 0 I don't cry anymore 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.
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.

## APPENDIX D

## State-Trait Anxiety Inventory

Scoring the State-Trait Anxiety Inventory: Items are scored on a 4-point scale ranging from 1 (Almost never) to 4 (Almost always). Items that are asterisked are scored in the reverse order (4 to 1).

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## SELF-EVALUATION QUESTIONNAIRE

Name \_\_\_\_\_ Date \_\_\_\_\_  
 Sex: Male \_\_\_\_\_ Female \_\_\_\_\_

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you generally feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

	Almost Never	Sometimes	Often	Almost Always
* 1. I feel pleasant.	1	2	3	4
2. I tire quickly.	1	2	3	4
3. I feel like crying.	1	2	3	4
4. I wish I could be as happy as others seem to be.	1	2	3	4
5. I am losing out on things because I can't make up my mind soon enough.	1	2	3	4
* 6. I feel rested.	1	2	3	4
* 7. I am "calm, cool, and collected."	1	2	3	4
8. I feel that difficulties are piling up so that I cannot overcome them.	1	2	3	4
9. I worry too much over something that really doesn't matter.	1	2	3	4
* 10. I am happy.	1	2	3	4
11. I am inclined to take things hard.	1	2	3	4
12. I lack self-confidence.	1	2	3	4
* 13. I feel secure.	1	2	3	4
14. I try to avoid facing a crisis or difficulty.	1	2	3	4
15. I feel blue.	1	2	3	4
* 16. I am content.	1	2	3	4
17. Some unimportant thought runs through my mind and bothers me.	1	2	3	4
18. I take disappointments so keenly that I can't put them out of mind.	1	2	3	4
* 19. I am a steady person.	1	2	3	4
20. I get in a state of tension or turmoil as I think over my recent concerns and interests.	1	2	3	4

## APPENDIX E

## Personality Research Form

Scoring the Personality Research Form: There are 15 scales on Form A of the Personality Research Form: Achievement, Affiliation, Aggression, Autonomy, Dominance, Endurance, Exhibition, Harmavoidance, Impulsivity, Nurturance, Order, Play, Social Recognition, Understanding, and Infrequency. Item 1 on the questionnaire assesses achievement, item 2, affiliation, item 3, aggression, and so on, to item 15, infrequency. The series begins again at items 16, 31, 46, 61, 75, etc., to item 186. With each new series, the directionality of the item is reversed. To obtain a total score for each scale, sum the items that are scored in a positive direction within each scale.

# PERSONALITY RESEARCH FORM

FORM A



DOUGLAS N. JACKSON, PH.D.  
OF UNIVERSITY OF WESTERN ONTARIO

## DIRECTIONS

On the following pages you will find a series of statements which a person might use to describe himself. Read each statement and decide whether or not it describes you. Then indicate your answer on the separate answer sheet.

If you agree with a statement or decide that it does describe you, answer TRUE. If you disagree with a statement or feel that it is not descriptive of you, answer FALSE.

In marking your answers on the answer sheet, be sure that the number of the statement you have just read is the same as the number on the answer sheet.

Answer every statement either true or false, even if you are not completely sure of your answer.

1. I enjoy doing things which challenge me.
2. I pay little attention to the interests of people I know.
3. I get a kick out of seeing someone I dislike appear foolish in front of others.
4. If public opinion is against me, I usually decide that I am wrong.
5. I would enjoy being a club officer.
6. If I can't finish a task within a certain amount of time, I usually decide not to waste any more time on it.
7. Others think I am lively and witty.
8. I almost always accept a dare.
9. I admire free, spontaneous people.
10. I think a man is smart to avoid being talked into helping his acquaintances.
11. I often decide ahead of time exactly what I will do on a certain day.
12. I feel that adults who still like to play have never really grown up.
13. I consider it important to be held in high esteem by those I know.
14. Philosophical discussions are a waste of time.
15. I was born over 90 years ago.
16. Self-improvement means nothing to me unless it leads to immediate success.
17. I believe that a person who is incapable of enjoying the people around him misses much in life.
18. It doesn't bother me much to have someone get the best of me in a discussion.
19. I would like to wander freely from country to country.
20. I am not very insistent in an argument.
21. I don't mind doing all the work myself if it is necessary to complete what I have begun.
22. I am too shy to tell jokes.
23. I am careful about the things I do because I want to have a long and healthy life.
24. I have a reserved and cautious attitude toward life.
25. When I see someone who looks confused, I usually ask if I can be of any assistance.
26. I don't especially care how I look when I go out.
27. I love to tell, and listen to, jokes and funny stories.
28. I give little thought to the impression I make on others.
29. I often try to grasp the relationships between different things that happen.
30. I try to get at least some sleep every night.
31. I get disgusted with myself when I have not learned something properly.
32. Trying to please people is a waste of time.
33. I swear a lot.
34. Adventures where I am on my own are a little frightening to me.
35. I try to control others rather than permit them to control me.
36. If I find it hard to get something I want, I usually change my mind and try for something else.
37. I like to have people talk about things I have done.
38. I would enjoy learning to walk on a tightrope.
39. I find that I sometimes forget to "look before I leap."
40. All babies look very much like little monkeys to me.
41. When I am going somewhere I usually find my exact route by using a map.
42. I consider most entertainment to be a waste of time.
43. I very much enjoy being complimented.
44. I can't see how intellectuals get personal satisfaction from their impractical lives.
45. I have a number of outfits of clothing, each of which costs several thousand dollars.
46. I work because I have to, and for that reason only.
47. Loyalty to my friends is quite important to me.
48. If someone does something I don't like, I seldom say anything.
49. When I was a child, I wanted to be independent.
50. I have little interest in leading others.
51. If people want a job done which requires patience, they ask me.
52. I would not like the fame that goes with being a great athlete.
53. I would never want to be a forest-fire fighter.
54. Rarely, if ever, do I do anything reckless.
55. I feel very sorry for lonely people.
56. My personal papers are usually in a state of confusion.
57. I enjoy parties, shows, games — anything for fun.
58. Social approval is unimportant to me.
59. I do almost as much reading on my own as I did for classes when I was in school.
60. I make all my own clothes and shoes.
61. I will keep working on a problem after others have given up.

62. Most of my relationships with people are business-like rather than friendly.
63. If someone has a better job than I, I like to try to show him up.
64. I don't want to be away from my family too much.
65. I feel confident when directing the activities of others.
66. The mere prospect of having to put in long hours working makes me tired.
67. I don't mind being conspicuous.
68. I would never pass up something that sounded like fun just because it was a little bit hazardous.
69. The people I know who say the first thing they think of are some of my most interesting acquaintances.
70. I dislike people who are always asking me for advice.
71. I keep all my important documents in one safe place.
72. When I have a choice between work and enjoying myself, I usually work.
73. The good opinion of one's friends is one of the chief rewards for living a good life.
74. If the relationships between theories and facts are not immediately evident, I see no point in trying to find them.
75. I have attended school at some time during my life.
76. I try to work just hard enough to get by.
77. I am considered friendly.
78. I am quite soft-spoken.
79. My greatest desire is to be independent and free.
80. I would make a poor judge because I dislike telling others what to do.
81. If I want to know the answer to a certain question, I sometimes look for it for days.
82. I feel uncomfortable when people are paying attention to me.
83. I can't imagine myself jumping out of an airplane as skydivers do.
84. I am not an "impulse-buyer."
85. People like to tell me their troubles because they know that I will do everything I can to help them.
86. Most of the things I do have no system to them.
87. Once in a while I enjoy acting as if I were tipsy.
88. The opinions that important people have of me cause me little concern.
89. I have unlimited curiosity about many things.
90. I rarely use food or drink of any kind.
91. I often set goals that are very difficult to reach.
92. After I get to know most people, I decide that they would make poor friends.
93. Stupidity makes me angry.
94. I usually try to share my problems with someone who can help me.
95. I am quite good at keeping others in line.
96. When someone thinks I should not finish a project, I am usually willing to follow his advice.
97. I like to be in the spotlight.
98. I think it would be enjoyable and rather exciting to feel an earthquake.
99. I have often broken things because of carelessness.
100. I get little satisfaction from serving others.
101. Before I start to work, I plan what I will need and get all the necessary materials.
102. I only celebrate very special events.
103. I constantly try to make people think highly of me.
104. When I was a child, I showed no interest in books.
105. I have never ridden in an automobile.
106. I would rather do an easy job than one involving obstacles which must be overcome.
107. I enjoy being neighborly.
108. I seldom feel like hitting anyone.
109. I would like to have a job in which I didn't have to answer to anyone.
110. Most community leaders do a better job than I could possibly do.
111. I don't like to leave anything unfinished.
112. I was one of the quietest children in my group.
113. I avoid some hobbies and sports because of their dangerous nature.
114. I make certain that I speak softly when I am in a public place.
115. I believe in giving friends lots of help and advice.
116. I can work better when conditions are somewhat chaotic.
117. Most of my spare moments are spent relaxing and amusing myself.
118. It seems foolish to me to worry about my public image.
119. I would very much like to know how and why natural events occur in the way they do.
120. I could easily count from one to twenty-five.
121. My goal is to do at least a little bit more than anyone else has done before.
122. Usually I would rather go somewhere alone than go to a party.
123. Life is a matter of "push or be shoved."

124. I often do things just because social custom dictates.
125. I seek out positions of authority.
126. When other people give up working on a problem, I usually quit too.
127. I would enjoy being a popular singer with a large fan club.
128. I would enjoy the feeling of riding to the top of an unfinished skyscraper in an open elevator.
129. I enjoy arguments that require good quick thinking more than knowledge.
130. I really do not pay much attention to people when they talk about their problems.
131. I dislike to be in a room that is cluttered.
132. Practical jokes aren't at all funny to me.
133. Nothing would hurt me more than to have a bad reputation.
134. Abstract ideas are of little use to me.
135. Sometimes I feel thirsty or hungry.
136. I really don't enjoy hard work.
137. I try to be in the company of friends as much as possible.
138. If someone hurts me, I just try to forget about it.
139. If I have a problem, I like to work it out alone.
140. I think it is better to be quiet than assertive.
141. When I hit a snag in what I am doing, I don't stop until I have found a way to get around it.
142. At a party, I usually sit back and watch the others.
143. I try to get out of jobs that would require using dangerous tools or machinery.
144. I am not one of those people who blurt out things without thinking.
145. I am usually the first to offer a helping hand when it is needed.
146. I seldom take time to hang up my clothes neatly.
147. I like to go "out on the town" as often as I can.
148. I will not go out of my way to behave in an approved way.
149. When I see a new invention, I attempt to find out how it works.
150. I have never seen an apple.
151. I prefer to be paid on the basis of how much work I have done rather than on how many hours I have worked.
152. I have relatively few friends.
153. I often find it necessary to criticize a person sharply if he annoys me.
154. Family obligations make me feel important.
155. When I am with someone else I do most of the decision-making.
156. I don't believe in sticking to something when there is little chance of success.
157. If I were to be in a play, I would want to play the leading role.
158. Swimming alone in strange waters would not bother me.
159. I often get bored at having to concentrate on one thing at a time.
160. If someone is in trouble, I try not to become involved.
161. A messy desk is inexcusable.
162. I prefer to read worthwhile books rather than spend my spare time playing.
163. When I am doing something, I often worry about what other people will think.
164. It is more important to me to be good at a sport than to know about literature or science.
165. I usually wear something warm when I go outside on a cold day.
166. I have rarely done extra studying in connection with my work.
167. To love and be loved is of greatest importance to me.
168. If I have to stand in line, I seldom try to cut ahead of the other people.
169. I delight in feeling unattached.
170. I would make a poor military leader.
171. I am willing to work longer at a project than are most people.
172. When I was young I seldom competed with the other children for attention.
173. I prefer a quiet, secure life to an adventurous one.
174. I always try to be fully prepared before I begin working on anything.
175. I would prefer to care for a sick child myself rather than hire a nurse.
176. I could never find out with accuracy just how I have spent my money in the past several months.
177. I spend a good deal of my time just having fun.
178. I don't care if my clothes are unstylish, as long as I like them.
179. I am more at home in an intellectual discussion than in a discussion of sports.
180. I think the world would be a much better place if no one ever went to school.
181. People have always said that I am a hard worker.
182. I seldom go out of my way to do something just to make others happy.

183. I often make people angry by teasing them.
184. I respect rules because they guide me.
185. When two persons are arguing, I often settle the argument for them.
186. If I had to do something I didn't like, I would put it off and hope that someone else might do it.
187. I often monopolize a conversation.
188. To me, crossing the ocean in a sailboat would be a wonderful adventure.
189. It seems that emotion has more influence over me than does calm meditation.
190. I avoid doing too many favors for people because it would seem as if I were trying to buy friendship.
191. My work is always well organized.
192. Most of my friends are serious-minded people.
193. One of the things which spurs me on to do my best is the realization that I will be praised for my work.
194. I really don't know what is involved in any of the latest cultural developments.
195. I have no sense of touch in my fingers.
196. When people are not going to see what I do, I often do less than my very best.
197. Most people think I am warm-hearted and sociable.
198. I show leniency to those who have offended me.
199. I find that I can think better without having to bother with advice from others.
200. I would not do well as a salesman because I am not very persuasive.
201. When I am working outdoors I finish what I have to do even if it is growing dark.
202. I think that trying to be the center of attention is a sign of bad taste.
203. I never go into sections of a city that are considered dangerous.
204. I generally rely on careful reasoning in making up my mind.
205. When I see a baby, I often ask to hold him.
206. I often forget to put things back in their places.
207. I like to watch television comedies.
208. If I have done something well, I don't bother to call it to other people's attention.
209. If I believe something is true, I try to prove that my theory will hold up in actual practice.
210. If someone pricked me with a pin, it would hurt.
211. I don't mind working while other people are having fun.
212. When I see someone I know from a distance, I don't go out of my way to say "Hello."
213. I become angry more easily than most people.
214. I find that for most jobs the combined effort of several people will accomplish more than one person working alone.
215. If I were in politics, I would probably be seen as one of the forceful leaders of my party.
216. If I get tired while playing a game, I generally stop playing.
217. I try to get others to notice the way I dress.
218. I would enjoy exploring an old deserted house at night.
219. Often I stop in the middle of one activity in order to start something else.
220. People's tears tend to irritate me more than to arouse my sympathy.
221. I spend much of my time arranging my belongings neatly.
222. People consider me a serious, reserved person.
223. I feel that my life would not be complete if I failed to gain distinction and social prestige.
224. I would rather be an accountant than a theoretical mathematician.
225. If I were exploring a strange place at night, I would want to carry a light.
226. It doesn't really matter to me whether I become one of the best in my field.
227. I truly enjoy myself at social functions.
228. I do not like to see anyone receive bad news.
229. I would not mind living in a very lonely place.
230. I feel incapable of handling many situations.
231. I will continue working on a problem even with a severe headache.
232. I never attempt to be the life of the party.
233. Surf-board riding would be too dangerous for me.
234. If I am playing a game of skill, I attempt to plan each move thoroughly before acting.
235. I feel most worthwhile when I am helping someone who is disabled.
236. I rarely clean out my bureau drawers.
237. If I didn't have to earn a living, I would spend most of my time just having fun.
238. I don't try to "keep up with the Joneses."
239. I like to read several books on one topic at the same time.
240. I wear clothes when I am around other people.
241. Sometimes people say I neglect other important aspects of my life because I work so hard.
242. I want to remain unhampered by obligations to friends.



243. I have a violent temper.
244. To have a sense of belonging is very important to me.
245. I try to convince others to accept my political principles.
246. I am easily distracted when I am tired.
247. When I was in school, I often talked back to the teacher to make the other children laugh.
248. I would like to drive a motorcycle.
249. Most people feel that I act spontaneously.
250. I become irritated when I must interrupt my activities to do a favor for someone.
251. I keep my possessions in such good order that I have no trouble finding anything.
252. I usually have some reason for the things I do rather than just doing them for my own amusement.
253. I would not consider myself a success unless other people viewed me as such.
254. I would rather build something with my hands than try to develop scientific theories.
255. I can't believe that wood really burns.
256. I am sure people think that I don't have a great deal of drive.
257. I spend a lot of time visiting friends.
258. I do not think it is necessary to step on others in order to get ahead in the world.
259. Having a home has a tendency to tie a person down more than I would like.
260. I would not want to have a job enforcing the law.
261. I won't leave a project unfinished even if I am very tired.
262. I don't like to do anything unusual that will call attention to myself.
263. I will not climb a ladder unless someone is there to steady it for me.
264. I think that people who fall in love impulsively are quite immature.
265. Seeing an old or helpless person makes me feel that I would like to take care of him.
266. I feel comfortable in a somewhat disorganized room.
267. I delight in playing silly little tricks on people.
268. When I am being introduced, I don't like the person to make lengthy comments about what I have done.
269. I am unable to think of anything that I wouldn't enjoy learning about.
270. I can run a mile in less than four minutes.
271. I enjoy work more than play.
272. I am quite independent of the people I know.
273. I often quarrel with others.
274. I can do my best work when I have the encouragement of others.
275. With a little effort, I can "wrap most people around my little finger."
276. When I feel ill, I stop working and try to get some rest.
277. I perform in public whenever I have the opportunity.
278. I like the feeling of speed.
279. Life is no fun unless it is lived in a carefree way.
280. It doesn't affect me one way or another to see a child being spanked.
281. I can't stand reading a newspaper that has been messed up.
282. I would prefer a quiet evening with friends to a loud party.
283. I do a good job more to gain approval than because I like my work.
284. There are many activities that I prefer to reading.
285. I would have a hard time keeping my mind a complete blank.
286. It is unrealistic for me to insist on becoming the best in my field of work all of the time.
287. I go out of my way to meet people.
288. I try to show self-restraint to avoid hurting other people.
289. My idea of an ideal marriage is one where the two people remain as independent as if they were single.
290. I don't have a forceful or dominating personality.
291. I am very persistent and efficient even when I have been working for many hours without rest.
292. The idea of acting in front of a large group doesn't appeal to me.
293. To me, it seems foolish to ski when so many people get hurt that way.
294. I like to take care of things one at a time.
295. I can remember that as a child I tried to take care of anyone who was sick.
296. If I have brought something home, I often drop it on a chair or table as I enter.
297. Things that would annoy most people seem humorous to me.
298. Inner satisfaction rather than fame is my goal in life.
299. If I were going to an art exhibit, I would first try to learn about the artist, his style and technique, his philosophy of art, and the story behind each piece of work.
300. I am able to breathe.

APPENDIX F  
Parent Attitudes Test

Scoring the Parent Attitudes Test: Items on the Home Attitude Scale are scored on a 5-point scale ranging from 0 (first choice presented) to 4 (last choice presented). Items on the Behavior Rating Scale are scored on a 5-point scale in which "No" is scored 0, and "Yes" responses range from 1 (Very mildly) to 4 (Very strongly). Items on the Adjective Checklist Scale are scored on a 3-point scale ranging from 0 (describes my child very well) to 2 (does not apply at all to my child). Items that are asterisked are scored in the reverse order (2 to 0).

FORM PAT 66-1

NAME \_\_\_\_\_ DATE \_\_\_\_\_

CHILD'S NAME \_\_\_\_\_ DATE OF BIRTH \_\_\_\_\_

GRADE \_\_\_\_\_

Characteristic Attitudes and Behavior

Each of the questions below aims at providing us with a better understanding of your child's attitudes towards home, as well as his/her actual behavior. For each item, please indicate by putting a check (✓) next to the statement that you think is most true for your child.

II. Home and Neighborhood

Children do not always behave the same way in different situations. In school, a child may behave in one way while at home or in the neighborhood he/she may be quite different.

A. As far as my child's behavior at home is concerned, he/she is doing:

- \_\_\_\_\_ very well.
- \_\_\_\_\_ quite well.
- \_\_\_\_\_ neither well nor poorly.
- \_\_\_\_\_ quite poorly.
- \_\_\_\_\_ very poorly.

B. Disciplining my child at home is usually:

- \_\_\_\_\_ very effective.
- \_\_\_\_\_ quite effective.
- \_\_\_\_\_ neither effective nor ineffective.
- \_\_\_\_\_ quite ineffective.
- \_\_\_\_\_ very ineffective.

C. With the other children in our neighborhood, my child gets along:

- \_\_\_\_\_ very well.
- \_\_\_\_\_ quite well.
- \_\_\_\_\_ neither well nor poorly.
- \_\_\_\_\_ quite poorly.
- \_\_\_\_\_ very poorly.

Form PAT 66-1  
Attitudes and Behavior

Child's Name \_\_\_\_\_

D. With his/her brother(s) and/or sister(s), my child gets along:

- \_\_\_\_\_ very well.
- \_\_\_\_\_ quite well.
- \_\_\_\_\_ neither well nor poorly.
- \_\_\_\_\_ quite poorly.
- \_\_\_\_\_ very poorly.

E. When I try to reason with my child:

- \_\_\_\_\_ it almost always works.
- \_\_\_\_\_ it often works.
- \_\_\_\_\_ it sometimes works.
- \_\_\_\_\_ it seldom works.
- \_\_\_\_\_ it never works.

F. Compared to other children of the same age, my child is:

- \_\_\_\_\_ very happy.
- \_\_\_\_\_ quite happy.
- \_\_\_\_\_ neither happy nor unhappy.
- \_\_\_\_\_ quite unhappy.
- \_\_\_\_\_ very unhappy.

G. Compared to other children of the same age, my child has:

- \_\_\_\_\_ many fewer problems.
- \_\_\_\_\_ fewer problems.
- \_\_\_\_\_ as many problems.
- \_\_\_\_\_ more problems.
- \_\_\_\_\_ many more problems.

## Parents' Rating Scale for Children

All children, at one time or another, run into some difficulties and problems as part of the process of growing up. These are not always the same for different times. We are concerned primarily with your child's behavior as you have seen it during the past month.

Listed below are a series of difficulties that young children often show. Many of these may not apply at all to your child's behavior. On the other hand, many of them may be quite descriptive of his or her behavior during the past month.

For each problem, please indicate by a check (✓) in the appropriate place whether or not the given characteristic applies. If it does apply, please indicate the degree to which it applies by placing a second check (✓) in the appropriate column to the right.

In addition, please underline the specific elements of the behavior pattern that apply.

For example:

<u>Behavior</u>	Does it apply? If "yes", to what extent?					
	<u>No</u>	<u>Yes</u>	<u>Very Mildly</u>	<u>Moderately</u>	<u>Strongly</u>	<u>Very Strongly</u>
Enjoys TV (cowboys, <u>cartoons</u> , comedy, news, travel, other)		✓			✓	

Does it apply? If "yes", to what extent?

<u>Behavior</u>	<u>No</u>	<u>Yes</u>	<u>Very Mildly</u>	<u>Moderately</u>	<u>Strongly</u>	<u>Very Strongly</u>
1. Eating trouble (eats too much, eats too little, has fads, eats only certain foods, other)						
2. Trouble sleeping (won't go to bed, awakens often, fights sleep, has nightmares, other)						
3. Stomach trouble (diarrhea, constipation, irregularity, vomiting, nervous stomach, other)						
4. Is bothered by headaches, frequent colds, allergies, asthma, rashes, other						

Form PBR 66-1  
Parents' Rating Scale

Child's Name \_\_\_\_\_

Does it apply? If "yes", to what extent?

	<u>No</u>	<u>Yes</u>	<u>Very Mildly</u>	<u>Moderately</u>	<u>Strongly</u>	<u>Very Strongly</u>
5. Is timid, bashful, or retiring with children						
6. Is timid, bashful, or retiring with grownups						
7. Bullies, argues, or fights children						
8. Is "fresh", talks back, argues with adults						
9. Bites nails, sucks thumb, chews blanket						
10. Is overactive or restless						
11. Daydreams						
12. Has temper tantrums						
13. Crying						
14. Tears up or breaks things						
15. Wets bed						
16. Depends on others for help						
17. Gets upset by criticism						

Form PBR 66-1  
Parents' Rating Scale

Child's Name \_\_\_\_\_

Does it apply? If "yes", to what extent?

<u>Behavior</u>	<u>No</u>	<u>Yes</u>	<u>Very Mildly</u>	<u>Moderately</u>	<u>Strongly</u>	<u>Very Strongly</u>
18. Is fearful of other children or adults						
19. Stays by himself						
20. Seeks attention						
21. Criticizes others						
22. Reacts poorly to failure						
23. Disrupts household routines						



Form PACL 66-1

Child's Name \_\_\_\_\_

Date of Birth \_\_\_\_\_

Grade \_\_\_\_\_ School \_\_\_\_\_

Children's Behavior Scale

Below are a series of single words that are often used to describe children. Some will apply to your child; others will not. For each word listed, please put a check (✓) in the appropriate column indicating whether it applies to your child or not.

	Describes my child very well	Applies somewhat to my child	Does not apply at all to my child
* aggressive	_____	_____	_____
alert	_____	_____	_____
* boastful	_____	_____	_____
capable	_____	_____	_____
* careless	_____	_____	_____
cheerful	_____	_____	_____
confident	_____	_____	_____
cooperative	_____	_____	_____
* defiant	_____	_____	_____
* disobedient	_____	_____	_____
friendly	_____	_____	_____
happy	_____	_____	_____
helpful	_____	_____	_____
honest	_____	_____	_____
* inattentive	_____	_____	_____
* irritable	_____	_____	_____
* jealous	_____	_____	_____
kind	_____	_____	_____

Form PACL 66-1

Children's Behavioral Scale

Child's Name \_\_\_\_\_

2

	Describes my child very well	Applies somewhat to my child	Does not apply at all to my child
neat	_____	_____	_____
* noisy	_____	_____	_____
respectful	_____	_____	_____
* restless	_____	_____	_____
* rough	_____	_____	_____
responsible	_____	_____	_____
* rude	_____	_____	_____
* sad	_____	_____	_____
* shy	_____	_____	_____
sincere	_____	_____	_____
sociable	_____	_____	_____
* stubborn	_____	_____	_____
* tense	_____	_____	_____
thoughtful	_____	_____	_____
* worried	_____	_____	_____

## APPENDIX G

## Becker Bipolar Adjective Checklist

Scoring the Becker Bipolar Adjective Checklist: Items are scored on a 7-point scale ranging from +3 to -3. Items that are asterisked are scored in the reverse order (-3 to +3). Factor 2 (Less Withdrawn and Hostile) contains items 1 through 10 and item 45. Factor 3 (More Aggressive) contains items 18 through 23 and item 10. Factor 5 (More Conduct Problems) contains items 26, 28, 30, 31, 41, 42, 43, and 45.

## Child Inventory

For Office Use

Parent's Name \_\_\_\_\_

Child's Name \_\_\_\_\_

1-3 \_\_\_\_\_

4 \_\_\_\_\_

5-6 \_\_\_\_\_

Please circle the point on the scale which most accurately describes  
your evaluation of your child's behavior

	3	2	1	0	1	2	3		
1 Sociable	I	I	I	I	I	I	I	Unsociable	7 _____
2 Warm	I	I	I	I	I	I	I	Cold	8 _____
3 Happy	I	I	I	I	I	I	I	Depressed	9 _____
4 Responsive	I	I	I	I	I	I	I	Aloof	10 _____
5 Loving	I	I	I	I	I	I	I	Not loving	11 _____
6 Colorful	I	I	I	I	I	I	I	Colorless	12 _____
7 Extroverted	I	I	I	I	I	I	I	Introverted	13 _____
8 Interesting	I	I	I	I	I	I	I	Boring	14 _____
9 Optimistic	I	I	I	I	I	I	I	Pessimistic	15 _____
*10 Trusting	I	I	I	I	I	I	I	Distrusting	16 _____
11 Tense	I	I	I	I	I	I	I	Relaxed	17 _____
12 Nervous	I	I	I	I	I	I	I	Placid	18 _____
13 Excitable	I	I	I	I	I	I	I	Calm	19 _____
14 Emotional	I	I	I	I	I	I	I	Objective	20 _____
15 Anxious	I	I	I	I	I	I	I	Nonchalant	21 _____
16 Fluctuating	I	I	I	I	I	I	I	Stable	22 _____
17 Fearful	I	I	I	I	I	I	I	Not fearful	23 _____
18 Demanding	I	I	I	I	I	I	I	Not demanding	24 _____
19 Prone to anger	I	I	I	I	I	I	I	Not prone to anger	25 _____
20 Jealous	I	I	I	I	I	I	I	Not jealous	26 _____
21 Prone to tantrums	I	I	I	I	I	I	I	Not prone to tan- trums	27 _____

	3	2	1	0	1	2	3		
22 Impatient	I	I	I	I	I	I	I	Patient	28
23 Irritable	I	I	I	I	I	I	I	Easy-going	29
24 Conceited	I	I	I	I	I	I	I	Self-critical	30
25 Self-centered	I	I	I	I	I	I	I	Outgoing	31
26 Strong-willed	I	I	I	I	I	I	I	Weak-willed	32
27 Independent	I	I	I	I	I	I	I	Dependent	33
28 Dominant	I	I	I	I	I	I	I	Submissive	34
29 Adventurous	I	I	I	I	I	I	I	Timid	35
30 Tough	I	I	I	I	I	I	I	Sensitive	36
31 Noisy	I	I	I	I	I	I	I	Quiet	37
32 Dull-minded	I	I	I	I	I	I	I	Intelligent	38
33 Subject to distraction	I	I	I	I	I	I	I	Able to concentrate	39
34 Ineffective	I	I	I	I	I	I	I	Effective	40
35 Poor memory	I	I	I	I	I	I	I	Good Memory	41
36 Meaningless	I	I	I	I	I	I	I	Meaningful	42
37 Slow	I	I	I	I	I	I	I	Quick	43
38 Subjectively inferior	I	I	I	I	I	I	I	Self-confident	44
39 Bored	I	I	I	I	I	I	I	Interested	45
40 Responsible	I	I	I	I	I	I	I	Irresponsible	46
* 41 Obedient	I	I	I	I	I	I	I	Disobedient	47
* 42 Cooperative	I	I	I	I	I	I	I	Obstructive	48
* 43 Easily disciplined	I	I	I	I	I	I	I	Difficult to discipline	49
44 Organized	I	I	I	I	I	I	I	Disorganized	50
* 45 Helping	I	I	I	I	I	I	I	Not helping	51
46 Adult-Like	I	I	I	I	I	I	I	Infantile	52
47 Neat	I	I	I	I	I	I	I	Disorderly	53

**APPENDIX H****Child Behavior Checklist**

Scoring the Child Behavior Checklist: Items are scored on a 3-point scale ranging from 0 (not true) to 2 (very true or often true). To obtain a total score, sum the numbers that are circled.





III. Please list any organizations, clubs, teams, or groups your child belongs to.

Compared to other children of the same age, how active is he/she in each?

\_\_\_\_\_ None

Don't Know    Less Active    Average    More Active

a. \_\_\_\_\_

\_\_\_\_\_

b. \_\_\_\_\_

\_\_\_\_\_

c. \_\_\_\_\_

\_\_\_\_\_

IV. Please list any jobs or chores your child has. For example: paper route, babysitting, making bed, etc.

Compared to other children of the same age, how well does he/she carry them out?

\_\_\_\_\_ None

Don't Know    Below Average    Above Average

a. \_\_\_\_\_

\_\_\_\_\_

b. \_\_\_\_\_

\_\_\_\_\_

c. \_\_\_\_\_

\_\_\_\_\_

V. 1. About how many close friends does your child have?

\_\_\_\_\_ None    \_\_\_\_\_ 1    \_\_\_\_\_ 2 or 3    \_\_\_\_\_ 4 or more

2. About how many times a week does your child do things with them?

\_\_\_\_\_ less than 1    \_\_\_\_\_ 1 or 2    \_\_\_\_\_ 3 or more

VI. Compared to other children of his/her age, how well does your child:

Worse    About the Same    Better

a. Get along with his/her brothers and sisters?

\_\_\_\_\_

b. Get along with other children?

\_\_\_\_\_

c. Behave with his/her parents?

\_\_\_\_\_

d. Play and work by himself/herself?

\_\_\_\_\_

## VII. 1. Current school performance - for children aged 6 and older:

\_\_\_\_\_ Does not go to school      Failing    Below Average    Average    Above Average

a. Reading or English

\_\_\_\_\_

b. Writing

\_\_\_\_\_

c. Arithmetic or Math

\_\_\_\_\_

d. Spelling

\_\_\_\_\_

Other academic subjects - for example: history, science, foreign language, geography

e. \_\_\_\_\_

\_\_\_\_\_

f. \_\_\_\_\_

\_\_\_\_\_

g. \_\_\_\_\_

\_\_\_\_\_

h. \_\_\_\_\_

\_\_\_\_\_

## 2. Is your child in a special class?

\_\_\_\_\_ No      \_\_\_\_\_ Yes - what kind? \_\_\_\_\_

## 3. Has your child ever repeated a grade?

\_\_\_\_\_ No      \_\_\_\_\_ Yes - grade and reason \_\_\_\_\_

## 4. Has your child had any academic or other problems in school?

\_\_\_\_\_ N      \_\_\_\_\_ Yes - please describe \_\_\_\_\_

When did these problems start? \_\_\_\_\_

Have these problems ended?

\_\_\_\_\_ No      \_\_\_\_\_ Yes - when? \_\_\_\_\_

VIII. Below is a list of items that describe children. For each item that describes your child now or within the past 6 months, please circle the 2 if the item is very true or often true of your child. Circle the 1 if the item is somewhat or sometimes true of your child. If the item is not true of your child, circle the 0.

- |   |   |   |     |   |
|---|---|---|-----|---|
| 0 | 1 | 2 | 1.  | Acts too young for his/her age  |
| 0 | 1 | 2 | 2.  | Allergy (describe): _____   |
| 0 | 1 | 2 | 3.  | Argues a lot  |
| 0 | 1 | 2 | 4.  | Asthma  |
| 0 | 1 | 2 | 5.  | Behaves like opposite sex   |
| 0 | 1 | 2 | 6.  | Bowel movements outside toilet  |
| 0 | 1 | 2 | 7.  | Bragging, boasting  |
| 0 | 1 | 2 | 8.  | Can't concentrate, can't pay attention for long                                   |
| 0 | 1 | 2 | 9.  | Can't get his/her mind off certain thoughts, obsessions (describe): _____         |
|   |   |   |     |   |
| 0 | 1 | 2 | 10. | Can't sit still, restless, or hyperactive   |
| 0 | 1 | 2 | 11. | Clings to adults or too dependent   |
| 0 | 1 | 2 | 12. | Complains of loneliness   |
| 0 | 1 | 2 | 13. | Confused or seems to be in a fog  |
| 0 | 1 | 2 | 14. | Cries a lot   |
| 0 | 1 | 2 | 15. | Cruel to animals  |
| 0 | 1 | 2 | 16. | Cruelty, bullying, or meanness to others  |
| 0 | 1 | 2 | 17. | Day-dreams or gets lost in his/her thoughts                                       |
| 0 | 1 | 2 | 18. | Deliberately harms self or attempts suicide                                       |
| 0 | 1 | 2 | 19. | Demands a lot of attention  |
| 0 | 1 | 2 | 20. | Destroys his/her own things   |
| 0 | 1 | 2 | 21. | Destroys things belonging to his/her family or other children                     |
| 0 | 1 | 2 | 22. | Disobedient at home   |
| 0 | 1 | 2 | 23. | Disobedient at school   |
| 0 | 1 | 2 | 24. | Doesn't eat well  |
| 0 | 1 | 2 | 25. | Doesn't get along with other children   |
| 0 | 1 | 2 | 26. | Doesn't seem to feel guilty after misbehaving                                     |
| 0 | 1 | 2 | 27. | Easily jealous  |
| 0 | 1 | 2 | 28. | Eats or drinks things that are not food (describe): _____                         |
|   |   |   |     |   |
| 0 | 1 | 2 | 29. | Fears certain animals, situations, or places, other than school (describe): _____ |

- 0 1 2 30. Fears going to school
- 0 1 2 31. Fears he/she might think or do something bad
- 0 1 2 32. Feels he/she has to be perfect
- 0 1 2 33. Feels or complains that no one loves him/her
- 0 1 2 34. Feels others are out to get him/her
- 0 1 2 35. Feels worthless or inferior
- 0 1 2 36. Gets hurt a lot, accident-prone
- 0 1 2 37. Gets in many fights
- 0 1 2 38. Gets teased a lot
- 0 1 2 39. Hangs around with children who get in trouble
- 0 1 2 40. Hears things that aren't there (describe): \_\_\_\_\_
- 
- 0 1 2 41. Impulsive or acts without thinking
- 0 1 2 42. Likes to be alone
- 0 1 2 43. Lying or cheating
- 0 1 2 44. Bites fingernails
- 0 1 2 45. Nervous, highstrung, or tense
- 0 1 2 46. Nervous movements or twitching (describe): \_\_\_\_\_
- 
- 0 1 2 47. Nightmares
- 0 1 2 48. Not liked by other children
- 0 1 2 49. Constipated, doesn't move bowels
- 0 1 2 50. Too fearful or anxious
- 0 1 2 51. Feels dizzy
- 0 1 2 52. Feels too guilty
- 0 1 2 53. Overeating
- 0 1 2 54. Overtired
- 0 1 2 55. Overweight
56. Physical problems without known medical cause:
- 0 1 2 a. Aches or pains
- 0 1 2 b. Headaches
- 0 1 2 c. Nausea, feels sick
- 0 1 2 d. Problems with eyes (describe): \_\_\_\_\_
- 0 1 2 e. Rashes or other skin problems
- 0 1 2 f. Stomachaches or cramps
- 0 1 2 g. Vomiting, throwing up
- 0 1 2 h. Other (describe): \_\_\_\_\_

- 0 1 2 57. Physically attacks people
- 0 1 2 58. Picks nose, skin, or other parts of body (describe): \_\_\_\_\_
- 
- 0 1 2 59. Plays with own sex parts in public
- 0 1 2 60. Plays with own sex parts too much
- 0 1 2 61. Poor school work
- 0 1 2 62. Poorly coordinated or clumsy
- 0 1 2 63. Prefers playing with older children
- 0 1 2 64. Prefers playing with younger children
- 0 1 2 65. Refuses to talk
- 0 1 2 66. Repeats certain acts over and over; compulsions (describe): \_\_\_\_\_
- 
- 0 1 2 67. Runs away from home
- 0 1 2 68. Screams a lot
- 0 1 2 69. Secretive, keeps things to self
- 0 1 2 70. Sees things that aren't there (describe): \_\_\_\_\_
- 
- 0 1 2 71. Self-conscious or easily embarrassed
- 0 1 2 72. Sets fires
- 0 1 2 73. Sexual problems (describe): \_\_\_\_\_
- 
- 0 1 2 74. Showing off or clowning
- 0 1 2 75. Shy or timid
- 0 1 2 76. Sleeps less than most children
- 0 1 2 77. Sleeps more than most children during day and/or night (describe): \_\_\_\_\_
- 
- 0 1 2 78. Smears or plays with bowel movements
- 0 1 2 79. Speech problem (describe): \_\_\_\_\_
- 
- 0 1 2 80. Stares blankly
- 0 1 2 81. Steals at home
- 0 1 2 82. Steals outside the home
- 0 1 2 83. Stores up things he/she doesn't need (describe): \_\_\_\_\_
- 
- 0 1 2 84. Strange behavior (describe): \_\_\_\_\_
-

- 0 1 2 85. Strange ideas (describe): \_\_\_\_\_  
\_\_\_\_\_
- 0 1 2 86. Stubborn, sullen, or irritable
- 0 1 2 87. Sudden changes in mood or feelings
- 0 1 2 88. Sulks a lot
- 0 1 2 89. Suspicious
- 0 1 2 90. Swearing or obscene language
- 0 1 2 91. Talks about killing self
- 0 1 2 92. Talks or walks in sleep (describe): \_\_\_\_\_  
\_\_\_\_\_
- 0 1 2 93. Talks too much
- 0 1 2 94. Teases a lot
- 0 1 2 95. Temper tantrums or hot temper
- 0 1 2 96. Thinks about sex too much
- 0 1 2 97. Threatens people
- 0 1 2 98. Thumb-sucking
- 0 1 2 99. Too concerned with neatness or cleanliness
- 0 1 2 100. Trouble sleeping (describe): \_\_\_\_\_  
\_\_\_\_\_
- 0 1 2 101. Truancy, skips school
- 0 1 2 102. Underactive, slow moving, or lacks energy
- 0 1 2 103. Unhappy, sad, or depressed
- 0 1 2 104. Unusually loud
- 0 1 2 105. Uses alcohol or drugs (describe): \_\_\_\_\_  
\_\_\_\_\_
- 0 1 2 106. Vandalism
- 0 1 2 107. Wets self during the day
- 0 1 2 108. Wets the bed
- 0 1 2 109. Whining
- 0 1 2 110. Wishes to be of opposite sex
- 0 1 2 111. Withdrawn, doesn't get involved with others
- 0 1 2 112. Worrying
113. Please write in any problems your child has that were not listed above:  
0 1 2 \_\_\_\_\_  
0 1 2 \_\_\_\_\_  
0 1 2 \_\_\_\_\_

APPENDIX I  
Subject Consent Form



Consent Form

Date \_\_\_\_\_

I, \_\_\_\_\_, voluntarily give my consent for myself and \_\_\_\_\_, to be participants in the research project to be conducted at the University of British Columbia during the period July 15, 1981 to December 15, 1981 with Robert J. McMahon, Ph.D., as Principal Investigator and Catherine R. Bond, M.A. as Co-Investigator. The procedures to be followed and their purpose have been explained to me, and I understand them. They are as follows:

1. Completing questionnaires involving my perception of myself and my family.
2. Participating in four 40-minute home observations with my child.

I understand that my child and I will be observed by Dr. McMahon's assistants during the four home observations and that my responses on the questionnaires will remain anonymous unless I give my consent otherwise. I understand that the entire procedure will involve approximately 4 hours of my time.

Benefits from my and his or her participation are as follows:

1. I will receive feedback concerning my interaction with my child and my responses on the questionnaires.
2. I will be paid \$15 for my participation.

I understand that this consent may be withdrawn at any time without prejudice. My questions concerning this project have been answered to my satisfaction. I have read and understand the foregoing.

---

Witness

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Parent

## APPENDIX J

Subject Consent Form to Have Information Forwarded to Therapist

Consent Form

Date \_\_\_\_\_

I, \_\_\_\_\_, voluntarily give my consent to have the information which was obtained from my participation in the project conducted by Catherine Bond, forwarded to my therapist, \_\_\_\_\_.

\_\_\_\_\_  
Witness\_\_\_\_\_  
Parent