

Marital Disharmony and Children's Behaviour Problems: Aspects of a Poor Marriage that Affect Children Adversely

J. M. Jenkins* and M. A. Smith†

Abstract—The aim of this study was to investigate the elements of the parental marital relationship which put children at risk for behavioural and emotional problems. Data from 119 families from the general population with a child aged between 9 and 12 years were analysed for the present study. The relationship between children's emotional and behavioural problems and overt parental conflict, covert tension between parents and discrepancy on child-rearing practices was assessed. Overt parental conflict was found to relate most strongly to children's emotional and behavioural problems using mothers', fathers' and children's accounts of the children's symptoms and after controlling for other aspects of marital disharmony. Aspects of the parent-child relationship were hypothesized as mediating variables in the relationship between parental conflict and children's emotional and behavioural problems, but the data did not support this hypothesis.

Keywords: Marital disharmony, children's behaviour problems, parental conflict, parent-child relationships

Introduction

Aspects of poor parental marriage which affect children adversely

The association between poor parental marriage and children's psychiatric disturbance is well established. Children living in disharmonious homes show more emotional and behavioural problems than children living in harmonious homes (Block, Block & Morrison, 1981; Emery, 1982; Rutter *et al.*, 1975). Most of the research documenting the relationship between poor parental marriage and children's psychiatric problems has used a global assessment of marital disharmony (Emery & O'Leary, 1984; Richman, Stevenson & Graham, 1982). Little research has been done on what it is within the global concept of disharmonious marriage which has an adverse impact on children. A number of studies indicate that various specific factors within the broader framework of marital disharmony might be implicated.

Accepted manuscript received 5 November 1990

*Department of Psychology, University of Stirling, Stirling FK9 4LA, U.K.

†Department of Child Psychiatry, Institute of Child Health, University of London, U.K.

Requests for reprints to: Marjorie A. Smith, Department of Child Psychiatry, Institute of Child Health, 30 Guilford Street, London WC1N 1EH, U.K.

Quinton, Rutter and Rowlands (1976) found that child psychiatric disorder was more strongly associated with poor marriages characterized by discord than poor marriages characterized by apathy and distance. Porter and O'Leary (1980), investigating a sample of children attending a psychiatric clinic, found that boys' externalized or antisocial problems were more strongly associated with a measure assessing the extent of marital hostility observed by the child (defined by quarrelling, sarcasm and physical abuse), than a more general measure of marital satisfaction. Hess and Camara (1979) found that parental conflict was a stronger predictor of children's adjustment than whether the family was intact or divorced. There is, therefore, some evidence that overt conflict is one of the elements of an unhappy parental relationship which is particularly deleterious to children.

Another possible factor within parental disharmony explaining children's emotional and behavioural problems is parental discrepancy on child-rearing issues such as discipline. If parents are in disagreement over child rearing they will not be consistent in handling children and this may be linked to the development of behavioural disorders. Block *et al.* (1981) found that parental discrepancy on child-rearing issues was associated with problems of undercontrol in boys and problems of overcontrol in girls. Chess, Thomas, Korn, Mittleman and Cohen (1983) found that a scale of parental conflict (composed mainly of items related to disagreement over child management) when the child was 3 years old was significantly related to adaptation as an adult, assessed when the child had reached early adult life (18 and 22 years old). Camara and Resnick (1987), investigating family process predictors of children's post-divorce adjustment, found that interparental cooperation in the parental role was a strong predictor of children's behavioural problems, self-esteem and prosocial behaviour. Family therapists also stress the importance of parents agreeing on issues related to children so that children do not get caught up in the parental conflict (Haley, 1976; Minuchin, Rosman & Baker, 1978).

The relationship between marital disharmony, the parent-child relationship and children's behavioural and emotional problems

Parental disharmony may have a direct effect on children's behaviour or it may operate indirectly through a third variable, which covaries with parental disharmony. In order to illustrate how a direct effect might operate, consider the following example in relation to parental conflict. The sight of people arguing, with raised voices and angry facial expressions may in itself be frightening or distressing to children. There is some support for this hypothesis in that children who watch two adults, who are not their parents, in a simulated argument, show distress during the episode and increased aggression with peers directly after it (Cummings, Ianotti & Zahn-Waxler, 1985; Cummings, 1987; Cummings, Pellegrini, Notarius & Cummings, 1989a).

It may be, however, that disharmony distorts family relationships and it is these family relationships rather than the disharmony itself which are active in contributing to children's emotional problems. Destructive family alliances may develop as a consequence of two parents not getting on (Emery, 1988).

Parental disharmony may affect how one parent feels and acts towards the child, which in turn affects the child's behaviour. Jouriles, Barling and O'Leary (1987)

found that violence between parents was associated with increased parent-child violence. Parent-child violence was a stronger predictor of children's behavioural problems than marital violence and after controlling for parent-child violence the association between marital violence and children's behavioural problems was not significant. Easterbrooks and Emde (1988), in a longitudinal study of marital quality, parenting and children's behaviour, found a significant relationship between marital quality and fathers' child-rearing attitudes, but no relationship between marital quality and mothers' child-rearing attitudes, nor marital quality and observational measures of mothers' and fathers' parenting behaviours in a laboratory setting. Thus as yet there is mixed evidence on the link between marital quality and parenting behaviours.

In this study we were interested to examine the impact of parental disharmony on parent-child relationships and to examine whether these parent-child relationship variables played an important role in mediating the relationship between parental disharmony and children's problems. Several aspects of the parent-child relationship were hypothesized to covary with marital disharmony and be associated with an increased level of behavioural problems in children. Richman *et al.* (1982) found that maternal criticism of the child at age 3 predicted behavioural disorders at age 8. They did not examine the relationship between parent-child criticism and parental disharmony but it would be plausible to hypothesize that these covaried. Lack of parental structure and supervision of the child has been found to be associated with increased antisocial behaviours (Patterson, 1982; Robins & Ratcliff, 1978) and is more common in homes in which the parents have recently separated than in intact homes (Hetherington, Cox & Cox, 1978). In any study attempting to determine which aspects of a poor marital relationship affect children adversely it is important to control for aspects of the parent-child relationship which covary with negative aspects of the marital relationship.

One further methodological issue to consider is that many of the studies finding a link between marital disharmony and children's problems rely on data collected from the same respondent (usually the mother) to assess marital disharmony and children's behavioural problems. It may be that the positive correlation is due to one person reporting on both variables rather than because a real relationship exists between the two variables. For instance, a mother in a disharmonious marriage who is feeling miserable about a variety of issues in her life may experience her child's behaviour as problematic, when his or her behaviour is normal. It is therefore important to have a measure of child behavioural disturbance which is independent of parental support.

Aims of This Study

The aims of this study were: (a) to examine the relative strengths of association between children's emotional and behavioural problems and the following three aspects of parental marriage in a general population sample: overt parental conflict, covert and unexpressed tension between parents, parental discrepancy on child-rearing practices; (b) to examine the impact of marital disharmony on aspects of the parent-

child relationship and (c) to control for aspects of the parent-child relationship when assessing the link between marital disharmony and children's behaviour.

Method

The study to be described in this paper was part of a larger general population study on children coping with marital disharmony. Data relating to children coping with parental quarrels, protective factors for children in disharmonious homes and continuities of children's behaviour, parental marriage and maternal depression over time are described elsewhere (respectively Jenkins, Smith & Graham, 1989; Jenkins & Smith, 1990; Smith, Jenkins & Graham, in preparation).

The sample for this study was drawn from a previous study (Smith, Delves, Lansdown, Clayton & Graham, 1983). This previous study was a general population study examining the effects of lead on children's health and behaviour. Approximately 7000 children were initially screened and 452 families from three London Boroughs, with a target child aged between 6 and 7 years were interviewed between 1979 and 1982. The selection for interview was made on the basis of tooth lead level and the 452 indigenous children were shown to be representative of the total population in the boroughs on sex, family size, birth order and social group. A large amount of psychosocial information was collected including a rating of the quality of the parents' marital relationship, using an interview based assessment of marriage described by Quinton *et al.* (1976). The interview relates to the year prior to the interview and covers issues about confiding between couples, extent and satisfaction of husband's help with children, irritability and quarrels, separations, perceived problems in the marriage and joint leisure activity. It results in a classification of marriages on a 6 point scale of harmony/disharmony. Ratings of 1 and 2 describe better than average marriages characterized by mutual warmth and affection. A rating of 3 describes a less good marriage with some tension or negative interchange, but without any serious discord or unresolved problems. Ratings of 4, 5 and 6 describe disharmonious marriages characterized by increasing levels of hostile feelings and discord, or lack of interest, dislike and resentment.

For the present study, carried out between 1984 and 1986, families who had been rated in the first study as having a disharmonious marriage (rated as 4, 5 or 6) were matched on a best-fit basis on sex of child, family size, geographical area and social grouping with families who were rated as being harmonious (rated as 1 or 2).

One hundred and seventy-eight families were eligible for the present study. These included 83 families in which the marriage had been rated as disharmonious in the initial study and 83 families in which the marriage had been rated as harmonious. There were 12 replacements who were included when either the family refused participation or had moved out of the London area. Replacements were made from families with marriages initially rated as harmonious, as all of the families with marriages rated as disharmonious were already included in the sample. The same child in the family was the target for both studies. All children were between 9 and 12 years old at the time of follow-up.

Twenty-two per cent of eligible families did not take part. These included 7% ($n = 13$) who moved out of the London area or whom we were unable to trace, and 15% ($n = 26$) who refused to participate. These families were compared on a number of variables (using information collected previously) with the families who did take part. They did not differ on any of the variables examined, which were quality of marriage, sex of child, social grouping, birth order of the index child, family size, maternal IQ and maternal educational attainments. One hundred and thirty-nine families took part in the study. This included 139 primary caretakers (this was the mother in all but three families and this dataset will be referred to as the mothers' data), 102 fathers and 136 children. The 139 families included 16 families in which the parents had separated or divorced since the initial interview and 4 families in which one of the spouses had died. Only those families which remained intact between the first and second interview were included in the following analyses ($n = 119$).

Mothers and fathers were interviewed in their homes simultaneously but separately using a semi-structured interview. The children were interviewed approximately 1 week later. All interviewers were blind to any previous knowledge of the family and the children's interviewer was blind to all details of the present family circumstances. All three respondents reported on the children's emotional and behavioural problems, but only mothers and fathers reported on the parental marriage. The information

collected from mothers was more comprehensive than that collected from either fathers or children and details of this are outlined in the measures section. Interviews with the parents took approximately 3 hours and those with the children 1½ hours. Inter-rater reliability was assessed by two interviewers rating the same interview and was carried out on 15 mothers and 10 children. Cronbach's alpha (Cronbach, Gleser, Nanda & Rajaratnam, 1972) was used to calculate reliability and was between $\alpha = 0.73$ and $\alpha = 1.0$ for measures described in this paper. Test-retest reliability trials were not carried out on the mothers' or fathers' interviews as most of the measures were taken from interviews with previously well established reliability and validity (Brown & Rutter, 1966; Rutter, Tizard & Whitmore, 1970; Rutter & Brown, 1966; Quinton *et al.*, 1976; Richman *et al.*, 1982).

In order to give some overall indications of the validity of this interview assessment of the parental marital relationship used in the larger study, longitudinal data are presented. There was a strong correlation between the present marital rating (1985–1986) and the past one assessed between 1979 and 1982 ($r = 0.61$, $p < 0.001$). Eighty per cent of families remained in the same marital grouping, i.e. they were harmonious and remained harmonious (rated 1, 2 or 3) or were disharmonious and remained disharmonious (rated 4, 5 or 6). Ten per cent that were disharmonious became harmonious and 10% that were harmonious became disharmonious. This suggests a high level of continuity in parental marriage. Of the 16 families in which a separation/divorce had taken place, 12 (75%) had previously been rated as disharmonious. A significant relationship was found between the past marital rating and children's present behavioural and emotional problems ($r = 0.29$, $p < 0.001$). More information on the continuity of children's behaviour and parental marriage can be found in Smith *et al.* (in preparation).

Children's emotional and behavioural problems

Information was obtained from mothers, fathers and children about their children's behaviour and emotional state. Some items were taken from the interview developed by Graham and Rutter (Graham & Rutter, 1968; Rutter & Graham, 1968) and supplemented with items covered in ICD9 (World Health Organization, 1978) and DSM3 (American Psychiatric Association, 1980). Thirty-one aspects of behaviour were covered in the parents' interviews and included: sadness, irritable moods, anxiety, school refusal, fears and phobias, sleep problems, stealing at home and at school, disobedience, temper tantrums, aggressive behaviour towards peers or sibs, attention seeking, lying, enuresis, encopresis, eating disorder, hyperactivity, poor concentration, headaches, stomach aches, nausea and any other problems. Thirty items were covered in the children's interview. Only half overlapped with the parents' items. Items were omitted to save children embarrassment (e.g. encopresis) and children were asked in more detail about aspects of behaviour that they were thought to have more information on (e.g. disobedience at school). Each item was rated from 0 to 3, according to the frequency and severity of the behaviour over the last year, with a higher score indicating a more severe problem. The coding scheme reflected the degree of handicap that the behaviour caused the child and family. Codings on the 31 items were summed to yield a total symptom score. High symptom scores indicated many minor problems, a smaller number of serious problems or both. Inter-rater reliability for the mothers' report of symptoms was $\alpha = 0.84$ and for the children's symptoms was $\alpha = 0.89$. The children's interview was repeated with 20 children 1 month apart. Test-retest reliability on the children's symptom score was $\alpha = 0.87$.

Internalized and externalized problems

On the basis of prior hypothesis, consultation with a child psychiatrist and the statistical correlation of each individual item with the rest of the scale, symptoms were grouped into internalized and externalized problems. A separate score was computed for each. The scale for internalized behaviours included specific fears, anxieties, miserable and irritable moods, temper tantrums, school refusal and aches and pains. Internal consistency of this scale as measured by Cronbach's alpha was $\alpha = 0.65$ (mothers' data), $\alpha = 0.59$ (fathers' data) and $\alpha = 0.75$ (children's data). The scale for externalized behaviours included lying, stealing, aggression to siblings and peers, disobedience, overactive behaviour, poor concentration and soiling. Internal consistency was $\alpha = 0.70$ (mothers' data), $\alpha = 0.36$ (fathers' data) and $\alpha = 0.68$ (children's data).

Marital dimensions

For the present paper we supplemented the interview based assessment of marriage (Quinton *et al.*, 1976) with questions on discrepancy in child-rearing views and covert tension and more detailed codings about the severity of quarrels, as these were not covered in the original measure.

Overt parental conflict. Mothers and fathers were asked about the frequency of conflict over the last year. For a difference of opinion to be rated as a conflict it had to last for a minimum of 5 minutes, with raised voices. They were then asked detailed questions about the characteristics of quarrels including the amount of shouting, swearing, throwing objects and threatening to walk out. A global rating was made combining the frequency and severity information (range 1–4). This global rating of conflict was more strongly related to children's symptom scores than the simple frequency rating and is the rating used in this paper. In some of the analyses that follow this variable is dichotomized into high and low conflict. "Low" conflict includes no or mild conflict defined as less than monthly conflict or conflicts of short duration and low severity. Medium and high ratings of conflict were combined into the "high" category and included conflict that was monthly or more often, or severe in degree, i.e. prolonged with shouting, swearing etc.

Covert tension. This was based on mothers' and fathers' reports on how often they were tense and angry with one another, when they did not quarrel about the source of the tension. It was rated in terms of frequency and duration of episodes over the past year (range 1–4).

Discrepancy in child-rearing practices. Parents were asked about the extent to which they disagreed on three aspects of child-rearing: discipline, children's education and everyday childcare (e.g. what the child should wear, how often they should be bathed). Each area was rated individually in terms of frequency of disagreement and then summed (range 1–7).

Parent-child relationship variables

Lack of care. Parents were questioned on the amount of supervision that they exercised when the child was playing outside and how far the child was allowed to go on their own, the number of rules and the extent to which these were enforced, and the extent of family activities such as organized mealtimes (range 1–9).

Parental physical aggression towards the child was based on the mother's report of her and her husband's loss of physical control with the child over the previous 6 months (range 1–9).

Maternal verbal aggression towards the child was based on global ratings of the mothers' level of criticism and hostility towards the child during the entire interview and was assessed on the basis of voice tone and content (range 1–7).

Results

Agreement between parents

Agreement between parents on aspects of the marital relationship as assessed by Pearson correlation was as follows: overt parental conflict ($r = 0.45$), covert tension ($r = 0.30$) and discrepancy in child-rearing practices ($r = 0.25$). Fathers reported fewer problems than mothers both in relation to the marriage and in relation to the children's behaviour (Jenkins & Smith, in preparation). Agreement on children's symptoms was as follows: mothers and fathers ($r = 0.36$), mothers and children ($r = 0.33$) and fathers and children ($r = 0.16$). As agreement between parents was low, combining both parents' reports of the marital dimensions would just give an unreliable measure. Each parent's report of the marital dimensions was used separately, and compared with their own report of children's symptoms. Children's assessments of their own symptoms are included in the analyses in order to supply an account of children's symptoms which is independent of the parents' report of their marriage.

Which aspect of parental marriage is most strongly associated with children's symptoms?

The intercorrelation between the three marital dimensions was examined. Mothers' report of overt parental conflict was significantly related to mothers' report of covert tension ($r = 0.41$) and to mothers' report of discrepancy in child-rearing practices ($r = 0.48$); mothers' report of discrepancy in child-rearing practices was significantly related to mothers' report of covert tension ($r = 0.31$). Multicollinearity was tested for by examining the combination of two variables in predicting the third using multiple regression. No combination of two variables was found to predict more than 25% of the variance of the third.

Fathers' report of overt parental conflict was weakly but significantly related to fathers' report of covert tension ($r = 0.20$) and to fathers' report on discrepancy in child-rearing practices ($r = 0.42$); fathers' report on discrepancy in child-rearing practices was weakly related to fathers' report of covert tension ($r = 0.22$).

We had initially intended to include frequency of short parental separation over the last 2 years in intact marriages as one of the marital dimensions to be examined. There were, however, too few instances of the parents separating for short periods of time and then getting back together ($n = 8$) to make inclusion meaningful.

In order to determine which marital dimension was the most significant in predicting children's disturbance, the relationship between the children's symptoms and the three marital dimensions was examined using Pearson product moment correlation. Results for mothers', fathers' and children's data using the total symptom score, children's internalized and children's externalized problems can be seen in Table 1.

Table 1. Pearson product moment correlations of mothers' and fathers' reports of each marital dimension with mothers', fathers' and children's reports of children's total symptom score, children's internalized problem score and children's externalized problem score

	Mothers' report: total score	Mothers' report: internal problems	Mothers' report: external problems	Child's report: total score	Child's report: internal problems	Child's report: external problems
Mothers' report of overt parental conflict	0.43***	0.36***	0.42***	0.27**	0.12	0.32***
Mothers' discrepancy in child-rearing practices	0.32***	0.34***	0.32***	0.09	0.05	0.10
Mothers' covert tension	0.31***	0.26**	0.35***	0.12	0.02	0.29***
	Fathers' report: total score	Fathers' report: internal problems	Fathers' report: external problems	Child's report: total score	Child's report: internal problems	Child's report: external problems
Fathers' report of overt parental conflict	0.39***	0.30**	0.33***	0.19*	0.09	0.24**
Fathers' report of discrepancy in child-rearing practices	0.27**	0.27**	0.22*	0.09	0.04	0.11
Fathers' report of covert tension	0.08	0.08	0.11	0.10	0.00	0.11

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

The marital dimension most strongly related to children's total symptom score, their externalized problems and internalized problems in mothers', fathers' and children's accounts is overt parental conflict. The more frequent and severe the conflict, the more difficulties mothers, fathers and children report with children's behaviour. Overt parental conflict is more consistently related to children's externalized behavioural problems than their internalized behavioural problems in mothers', fathers' and children's accounts of children's symptoms.

Discrepancy in child-rearing practices is related to mothers' and fathers' accounts of children's symptoms but not to children's accounts. Covert tension is related to mothers' accounts of children's symptoms and the children's accounts of their externalized problems but not to the children's account of their total symptom score or any of the fathers' reports of the children's symptoms.

As the measures were not strictly continuous, Spearman rank correlations were performed using the different accounts of symptoms as the outcome variable and conflict was confirmed as the variable most strongly and consistently related to children's symptoms, particularly externalized problems.

There was some intercorrelation between the different dimensions of parental marriage. Simple correlation coefficients do not allow us to assess the unique impact of overt parental conflict, as separate from the impact of covert tension or discrepancy in child-rearing practices. In order to examine the unique impact of overt parental conflict it was important to control for the impact of the other marital dimensions.

A partial correlation was therefore carried out on each factor controlling for the effect of the other two factors. For example, a partial correlation was carried out between overt parental conflict and children's symptoms controlling for covert tension and discrepancy in child-rearing practices. The results of these partial correlations can be seen in Table 2.

In mothers', fathers', and children's data, overt parental conflict is the only marital dimension associated with children's symptoms after controlling for the other two variables (in this case discrepancy in child-rearing practices and covert tension). Thus, covert tension and discrepancy over child-rearing practices do not in themselves have an association with children's emotional and behavioural problems after controlling for the effects of overt parental conflict.

In order to give some indication of the levels of symptoms and their range that children were showing in response to overt parental conflict, this variable was dichotomized into high and low overt conflict. The means, standard deviations and ranges of children's symptom scores as reported by mothers, fathers and children as a function of high and low conflict are given in Table 3.

It can be seen from this that by no means all children who experienced parental conflict were showing emotional and behavioural problems. As a group, children in high conflict homes experienced significantly more problems (see below) than children in low conflict homes, but it is still the case that some children living in conflictual homes show no problems.

Relationship between parental conflict, problems in the parent-child relationship and children's symptoms

It may be that frequent and severe conflict has a direct effect on children's behaviour

Table 2. Partial correlations between each marital dimension (as reported by mothers and fathers) and children's total symptom score as reported by mothers, fathers and children controlling for the remaining two marital dimensions

	Mothers' report: children's symptoms	Children's report: children's symptoms
<i>Mothers' report of overt parental conflict</i> controlling for discrepancy in child-rearing practices and covert tension	0.28**	0.24**
<i>Mothers' report of discrepancy in child-rearing practices</i> controlling for overt parental conflict and covert tension	0.14	- 0.03
<i>Mothers' report of covert tension</i> controlling for overt parental conflict and discrepancy in child-rearing practices	0.09	- 0.02
	Fathers' report: children's symptoms	Children's report: children's symptoms
<i>Fathers' report of overt parental conflict</i> controlling for discrepancy in child-rearing practices and covert tension	0.32***	0.16
<i>Fathers' discrepancy in child-rearing practices</i> controlling for overt parental conflict and covert tension	0.13	0.00
<i>Fathers' covert tension</i> controlling for overt parental conflict and discrepancy in child-rearing practices	- 0.01	- 0.06

** $p < 0.01$; *** $p < 0.001$.

Table 3. Mean, standard deviation and range of children's symptoms as reported by mothers, fathers and children as a function of high and low overt parental conflict

	Low overt conflict	High overt conflict
<i>Mothers' report</i>		
Mean	8.3	14.4
SD	4.8	9.0
Range	0-27	1-34
<i>Fathers' report</i>		
Mean	7.6	9.7
SD	5.7	8.8
Range	0-26	0-40
<i>Children's report</i>		
Mean	9.5	13.7
SD	5.3	7.0
Range	2-26	3-32

or that frequent and severe parental conflict is associated with a third variable, e.g. problems in the parent-child relationship, and that it is this third variable which is the active element in promoting higher levels of disturbance in children. Variables

which were hypothesized as mediating variables were: the parents being physically aggressive to the child, the parents being critical towards the child and lack of parental care of the child.

In order to assess whether aspects of the parent-child relationship covaried with parental conflict and children's symptoms, Pearson product moment correlations were carried out and the results can be seen in Table 4.

Table 4. Pearson product moment correlations of parental conflict and children's symptoms (as reported by mothers above and children below), with lack of care, parental physical aggression and parental verbal aggression

<i>Mothers' data</i>		
	Overt parental conflict as reported by mothers	Children's symptoms as reported by mothers
Lack of care	0.24**	0.44***
Parental physical aggression	0.31***	0.33***
Parental verbal aggression	0.08	0.30**
<i>Children's data</i>		
	Children's symptoms as reported by children	
Lack of care	0.06	
Parental physical aggression	0.14	
Parental verbal aggression	0.12	

** $p < 0.01$; *** $p < 0.001$.

As parental conflict increased, there was an increase in lack of care of the child, and parental aggression towards the child. There was no significant relationship between parental conflict and parental criticism of the child.

Lack of parental care of the child, parental criticism and parental aggression towards children were found to be significantly associated with increased child behaviour problems as reported by mothers, but not when children's reports of their symptoms were used.

In order to examine the hypothesis that the relationship between parental conflict and children's symptoms was mediated by aspects of the parent-child relationship, an analysis of covariance was carried out. Parental conflict was dichotomized into low and high conflict groups. Lack of parental care of the child, parental criticism and parental aggression towards children were entered as covariates in an ANCOVA with children's total symptom score as reported by mothers as the outcome variable and parental conflict and children's sex as main effects. Covariates were assessed before main effects or interactions. Parental physical aggression was dropped as a

covariate and the analysis was repeated, as parental physical aggression was not found to be significantly related to children's symptoms when the other two covariates were in the analysis.

Lack of care [$F(1,112) = 31.7, p < 0.001$] and parental criticism [$F(1,112) = 11, p < 0.001$] were both found to be significantly related to children's symptoms. Parental conflict was found to be significantly related to children's emotional and behavioural problems, after controlling for covariates [$F(1,112) = 15.3, p < 0.0001$]. Children's sex was not significantly related to children's symptoms [$F(1,112) = 1.9, \text{NS}$] but the interaction between sex and parental conflict was significant [$F(1,112) = 7.0, p < 0.009$] with boys more affected by parental conflict than girls. Thus parenting variables, although significantly related to children's symptoms, were not found to account for the relationship between parental conflict and children's symptoms.

In relation to the children's data, an analysis of covariance was unnecessary as none of the hypothesized covariates were found to be significantly associated with the children's report of their symptoms. A two-way ANOVA with parental conflict and children's sex as main effects showed that parental conflict was related to children's symptoms [$F(1,112) = 12.8, p < 0.001$] but neither the children's sex [$F(1,112) = 1.9, \text{NS}$] nor the interaction between sex and parental conflict were significantly related to children's symptoms [$F(1,112) = 1.07, \text{NS}$] demonstrating that on the basis of children's own reports children are adversely affected by parental quarrelling but boys are not more affected than girls.

Case illustrations

A continuous measure of children's disturbance has been used in this paper. This does not directly translate into the clinically significant concept of case/non-case. In order to facilitate some translation from symptom scores to children's behaviour two case illustrations are given. One is of a child with a symptom score near the mean of the high overt conflict group and the other is of a child randomly chosen from the top 10% of the sample. Both accounts are based on the mothers' report of the child's behaviour.

Level of symptoms at the mean for the high overt conflict group. Mandy is 10 years old. She has three siblings and lives in a high conflict home. She has always been a problem eater. Most nights (5 out of 7) the mother cooks Mandy a separate meal because she knows that she will not eat what the rest of the family are eating. This fussiness has not resulted in weight loss or compromised growth. She wet the bed every night for the first 5 months of the year but stopped wetting suddenly 7 months ago. Mandy has difficulty at school with reading and spelling, and attends a remedial class at school once per week for 1 hour. A few minor problems were described including occasionally being easily distractible and daily arguments with siblings which end in Mandy hitting one of her siblings about once per week. About once every 3 weeks she hits another child, but it has never resulted in a child getting hurt.

Child in the top 10% of the sample. Michael is a 10 year old boy with 3 siblings, living in a high conflict home. He soils himself and wets the bed at night. The wetting occurred nightly over the past year until 1 month prior to the interview, when the frequency reduced to 3 times per week. The soiling occurs twice per week on average,

and only at home. He has never had a period of being clean or dry at night. For the first half of the year prior to the interview he was in trouble daily for stealing pens, rubbers and books from other children at school. He had also been caught stealing sweets and crisps from shops on 5 occasions in the last year. Six months prior to the interview he had changed schools and there had been no further episodes of stealing either at school or from shops. He steals small amounts of money from his mother's purse most days and this has been going on throughout the previous year. He tells lies almost daily to cover up for his stealing. He is very active at home and easily distractible. He never sits and concentrates on something for more than 10 minutes and rarely completes something that he starts. A number of minor problems were reported.

Discussion

This is the first study in a general population sample to examine systematically what it is about parental marital disharmony that is damaging to children. Other studies have compared the differential impact of single dimensions of the parental marital relationship such as conflict versus apathy (Quinton *et al.*, 1976), or disagreement on child-rearing practices (Block *et al.*, 1981). This study used multiple respondents for the reporting of children's emotional and behavioural problems, which allowed for a measure of the children's disturbance which was independent of the reporting of parental marriage. This is only rarely achieved in studies of the effects of marriage on children (Emery, 1982).

Parental conflict emerged as the strongest predictor of children's problems in mothers', fathers', and children's accounts of emotional and behavioural problems. Parental conflict was also found to be more strongly and more consistently related to children's antisocial or externalized behaviours than their emotional or internalized behaviours. Parental conflict remained the only variable associated with children's problems after controlling for the influence of other aspects of the marriage. Covert tension between the parents and discrepancy on child-rearing practices were significantly related to children's problems but not after controlling for the influence of parental conflict. It should be noted, however, that the relationship between parental conflict and children's symptoms found in this study is not strong. Many children in high conflict homes were showing low symptom scores. Many factors other than parental disharmony are known to contribute to the development of emotional and behavioural problems in children (Rutter, 1979). It has been demonstrated that some factors act to protect children in disharmonious homes from showing emotional and behavioural problems (Jenkins & Smith, 1990). Including such ameliorating or protective factors in the analysis increases levels of prediction of the outcome variable. Further, Rutter (1979) has shown that stresses potentiate one another with the combination of two stresses providing a much higher risk of psychiatric disorder than one would expect by summing the effect of the individual stresses.

It is important to exercise some caution in interpreting the finding that parental conflict is the aspect of a poor parental marriage most deleterious to children. The difference between correlations of marital dimensions and children's symptoms is

not large. Further, there was some covariation between the different marital dimensions. Disharmonious marriages tended not to be problematic on one dimension but on a range of dimensions. This makes it harder to estimate the unique impact of any one variable. Although an attempt was made to identify statistically the unique impact of different marital dimensions, this was only partially successful given that these dimensions are intercorrelated in the real world.

However, the fact that conflict was confirmed as the strongest predictor of children's problems in each of three combinations of independent and dependent variables across respondents, and that conflict was the only dimension which remained significantly associated with children's problems after controlling for the other marital dimensions lends support to the finding that conflict is the element in a disharmonious marriage which is most deleterious to children. The results of this study are in agreement with the findings of Quinton *et al.* (1976) who found that children only demonstrated behavioural problems when parents had a conflictual poor marriage, not when they had a poor marriage that was characterized by distance and apathy towards one another. We confirmed Block *et al.*'s (1981) finding that discrepancy in child-rearing practices was associated with emotional and behavioural problems in children, but we took the inquiry one stage further by controlling for other aspects of the marriage and finding that discrepancy in child-rearing practices was only deleterious when it was associated with high overt parental conflict. Other researchers have also found a strong relationship between emotional and behavioural problems in children and parental conflict (Long, Slater, Forehand & Fauber, 1988; Hess & Camara, 1979; Porter & O'Leary, 1980; Wolfe, Jaffe, Wilson & Zak, 1985).

Recently, several authors have stressed the importance of lack of conflict resolution as a predictor of distress or behavioural difficulties in children (Camara & Resnick, 1987; Cummings *et al.*, 1989a). There is not yet adequate data to determine whether lack of resolution of conflict is more detrimental for children than frequency of overt conflict. Camara and Resnick (1987) examined family process factors affecting children's reactions to parental divorce. Interparental conflict and conflict resolution styles were assessed separately and they found that lack of conflict and conflict resolution was more strongly related to children's behavioural problems than amount of interparental conflict *per se*. Their measure of interparental conflict, however, was not a measure of overt conflict, but was based on issues such as positive and negative feelings between ex-spouses and covert tensions in the relationship. Cummings, Vogel, Cummings and El Sheikh (1989b) found that children reported higher levels of distress to a film showing two people in an unresolved quarrel than a film depicting a resolved quarrel. No control for frequency of quarrelling was made. It should also be noted that the experience of watching a film of strangers quarrelling and rating feelings of distress is quite different from a child being exposed to his or her parents quarrelling and developing emotional and behavioural problems as a result. In our own data the two dimensions of frequency of conflict and conflict resolution have not been differentiated satisfactorily to provide an answer to whether lack of conflict resolution is more distressing to children than simply frequency of conflict. These variables are likely to be strongly inversely correlated and it is indeed difficult to imagine a real life situation in which high frequency of overt conflict is not the result of low conflict resolution. It may, however, be more possible to distinguish between conflict resolution

and frequency of conflict at low frequency of overt conflict, and future research could usefully focus on this issue.

Using the mothers' account of symptoms, boys were more adversely affected by parental conflict than girls, but there was no sex difference in response to conflict when children's reports of their symptoms were used. This may have to do with a reporting bias affecting mothers of boys in high conflict marriages, such that in high conflict marriages, mothers experience their sons as more problematic than mothers experience their daughters, without boys in fact behaving in a more problematic fashion. Hetherington *et al.* (1978) found that newly divorced women of preschool children gave their sons less positive feedback than their daughters. In conflictual marriages, it is possible that sons remind women of their husbands, leading them to view the boys as more problematic.

It is also possible, however, that this discrepancy in result is related to children's inadequacies as respondents. Children become more reliable respondents about their emotional and behavioural problems as they get older (Edelbrock, Costello, Dulcan, Kalas & Conover, 1985). With less reliable measures, it is obviously more difficult to obtain significant effects for the independent variables, and more difficult still to obtain significant effects for interactions which are assessed after main effects. There has now been a considerable amount of work relating to the issue of whether there is a sex difference in children's response to marital disharmony (Cummings & Cummings, 1988; Emery & O'Leary, 1982, 1984; Jouriles, Pfiffner & O'Leary, 1988; Rutter, 1970; Whitehead, 1979) with results varying according to who the respondents are, the measures used and whether populations are drawn from clinic or non-clinic samples.

Mechanisms underlying association between parental conflict and children's behavioural and emotional problems

On the basis of the findings from this study, it is likely that parental conflict is deleterious to children, both directly in terms of children reacting negatively to being exposed to displays of anger and indirectly in terms of its association with parenting problems and problematic family relationships.

Direct effects. The experience of seeing and hearing a display of anger between parents is itself aversive to children. Cummings and colleagues (Cummings *et al.*, 1985; Cummings, 1987) have found that children show an increase in aggressive behaviour towards their peers after they have watched two people that they do not know getting angry with one another. The children report feelings of anger and boys show a more aggressive response than girls. These effects are not mediated by adult-child relationship variables as the experimenters are unknown to the children and have no direct interaction with them. A variety of explanations have been put forward (Cummings *et al.*, 1985) to explain the distress and anger that children show in response to background anger, including modelling effects, the lifting of a prohibition on the expression of negative emotion, some kind of contagion of emotion etc.

Indirect effects. One hypothesis, put forward by Jouriles *et al.* (1987), was that parental conflict was deleterious to children only in so far as it was associated with raised levels of parent-child aggression. In the present study it was found that there was still a significant relationship between parental conflict and children's symptoms after

controlling for parental aggression towards the child. The subjects in Jouriles *et al.*'s study were attending a treatment centre for mothers and children experiencing marital violence, and were probably showing much higher levels of violence than the level we found in a general population sample. This might account for the difference in our findings. In any case it would seem that the association between parental conflict and children's problems does not operate primarily through aggression in the parent-child relationship in families in the general population.

As overt parental conflict increased in this study, children also experienced less parental care and monitoring, and higher levels of physical aggression directed towards them. Factors such as lack of care and monitoring and parental physical aggression are known to be associated with increased risk of behavioural problems, particularly externalized or antisocial problems (Henggeler, 1989; Patterson, 1982; Robins & Ratcliff, 1978). Parental conflict may make it more likely that these negative parenting behaviours occur.

For instance, Hetherington *et al.* (1978) found that in the first year following divorce, divorced parents provided less structure in preschool children's lives such as mealtimes, bedtimes etc. than the parents in a non-divorced group. It may be that when the parental relationship is problematic, evidenced by a high level of conflict or divorce, the parents become too preoccupied to provide children with the level of structure and supervision that they need. In this circumstance children will be experiencing several stressors, which are consequent on one another. From the present cross-sectional data, it is not possible to determine whether parental conflict is increasing the risk of physical aggression and lack of monitoring or vice versa. Or indeed whether personality factors in the parents are responsible for generating high parental conflict and a high level of problems in the parent-child relationship. But the hypothesis that parental conflict is implicated in raising the occurrence of other negative factors needs further investigation.

One of the methodological issues making interpretation of the data difficult is the cross-sectional design. A longitudinal design is needed to assess whether parental conflict increases the risk of problems in the parent-child relationship, whether children's disturbance raises the probability of parental quarrels etc. Another methodological problem complicating our interpretation of results is the reporting differences between respondents. The issue of reporting differences between parents and children is presently attracting much attention in developmental psychopathology research (Angold *et al.*, 1987; Earls, 1980; Edelbrock *et al.*, 1985, 1986) with data beginning to emerge on which family members are the most reliable and valid, for different aspects of children's behaviour. In the particular area of parental conflict, children's behaviour and parent-child relationships it would also be worthwhile to combine semi-structured interview measures with observational measures. This might go some way towards clarifying the mechanisms underlying the association between parental conflict, poor parent-child relationships and children's behaviour as well as aiding in the interpretation of reporting differences when multiple respondents are used.

With the above cautions in mind there are important therapeutic implications arising out of this study. Overt parental conflict would seem to be more damaging to children than covert disagreement between parents. Structural family therapists stress the

importance of bringing conflicts between parents out into the open, as a first step towards their resolution (Minuchin *et al.*, 1978). The findings from this study would suggest that this may actually be detrimental to children if resolution cannot be achieved quickly. It may be in the interests of parents to become angry with one another in order to renegotiate goals, priorities, etc. but not in the immediate interests of children to experience such conflict.

Acknowledgements—We would like to thank the families that took part in this research and Jane Godfrey and Bridget Crook for help with data collection. This research was supported by a grant from the Medical Research Council. We would also like to thank Professor P. J. Graham and Professor K. Oatley for reading a draft of this paper and for the very helpful comments of the referees who anonymously reviewed it.

References

- American Psychiatric Association (1980). *Diagnostic and statistical manual of mental disorders* (DSM3), 3rd edn. Washington, D.C.: American Psychiatric Association.
- Angold, A., Weissman, M. M., John, K., Merikanagas, K. R., Prusoff, B. A., Wickramaratne, P., Davis Gammon, G. & Warner, V. (1987). Parent and child reports of depressive symptoms in children at low and high risk of depression. *Journal of Child Psychology and Psychiatry*, **28**, 901–915.
- Block, J. H., Block, J. & Morrison, A. (1981). Parental agreement–disagreement on child-rearing orientations and gender-related personality correlates in children. *Child Development*, **52**, 965–974.
- Brown, W. & Rutter, M. (1966). The measurement of family activities and relationships: a methodological study. *Human Relations*, **19**, 241–263.
- Camara, K. A. & Resnick, G. (1987). Marital and parental subsystems in mother custody, father custody and two parent households: effects on children's social development. In J. Vincent (Ed.), *Advances in family intervention, assessment and theory*, Vol. 4. Greenwich, CT: JAI.
- Chess, S., Thomas, A., Korn, S., Mittleman, M. & Cohen, H. (1983). Early parental attitudes, divorce and separation and young adult outcome: findings of a longitudinal study. *Journal of the American Academy of Child and Adolescent Psychiatry*, **22**, 47–51.
- Cronbach, L. J., Gleser, G. C., Nanda, H. & Rajaratnam, N. (1972). *The dependability of behavioural measurements: theory of generalisability for scores and profiles*. New York: Wiley.
- Cummings, E. M. (1987). Coping with background anger in early childhood. *Child Development*, **58**, 976–984.
- Cummings, E. M. and Cummings, J. S. (1988). A process-oriented approach to children's coping with adults' angry behavior. *Developmental Review*, **8**, 296–321.
- Cummings, E. M., Ianotti, R. J. & Zahn-Waxler, C. (1985). The influence of conflict between adults on the emotions and aggression of young children. *Developmental Psychology*, **21**, 495–507.
- Cummings, J. S., Pellegrini, D. S., Notarius, C. I. & Cummings, E. M. (1989a). Children's responses to angry adult behaviour as a function of marital distress and history of interparent hostility. *Child Development*, **60**, 1035–1043.
- Cummings, E. M., Vogel, D., Cummings, J. S. & El Sheikh, M. (1989b). Children's responses to different forms expression of anger between adults. *Child Development*, **60**, 1392–1404.
- Earls, F. (1980). The prevalence of behaviour problems in 3 year old children. *Journal of the American Academy of Child Psychiatry*, **19**, 439–452.
- Easterbrooks, M. A. & Emde, R. N. (1988). Marital and parent–child relationships: the role of affect in the family system. In R. A. Hinde & J. S. Stevenson-Hinde (Eds), *Relationships within families: mutual influences*. Oxford: Clarendon Press.
- Edelbrock, C., Costello, A. J., Dulcan, M. K., Kalas, R. & Conover, N. C. (1985). Age differences in the reliability of the psychiatric interview of the child. *Child Development*, **56**, 265–275.

- Edelbrock, C., Costello, A. J., Dulcan, M. K., Conover, N. C. & Kalas, R. (1986). Parent-child agreement on child psychiatric symptoms assessed via structured interview. *Journal of Child Psychology and Psychiatry*, **27**, 181-190.
- Emery, R. (1982). Interpersonal conflict and the children of discord and divorce. *Psychological Bulletin*, **92**, 310-330.
- Emery, R. (1988). *Marriage, divorce and children's adjustment*. Sage: Newbury Park.
- Emery, R. E. & O'Leary, D. K. (1982). Children's perceptions of marital discord and behavior problems of boys and girls. *Journal of Abnormal Child Psychology*, **10**, 11-24.
- Emery, R. E. & O'Leary, D. K. (1984). Marital discord and child behavior in a non-clinic sample. *Journal of Abnormal Child Psychology*, **12**, 411-420.
- Graham, P. J. & Rutter, M. (1968). The reliability and validity of the psychiatric assessment of the child. II. Interview with the parents. *British Journal of Psychiatry*, **114**, 581-592.
- Haley, J. (1976). *Problem-solving therapy: new strategies for effective family therapy*. San Francisco: Jossey-Bass.
- Henggeller, S. W. (1989). *Delinquency in adolescence*. Newbury Park: Sage.
- Hess, R. D. & Camara, K. A. (1979). Post divorce family relationships as mediating factors in consequences of divorce for children. *Journal of Social Issues*, **35**, 79-96.
- Hetherington, E. M., Cox, M. & Cox, R. (1978). The aftermath of divorce. In J. H. Stevens & M. Matthews (Eds), *Mother-child relations*. Washington, D.C.: N.A.E.Y.C.
- Jenkins, J. M. & Smith, M. A. (1990). Factors protecting children in disharmonious homes. *American Academy of Child and Adolescent Psychiatry*, **29**, 60-69.
- Jenkins, J. M. & Smith, M. A. Mothers', fathers' and children's reporting differences on family relationships and children's behaviour. In preparation.
- Jenkins, J. M., Smith, M. A. & Graham, P. J. (1989). Coping with parental quarrels. *Journal of the American Academy of Child and Adolescent Psychiatry*, **28**, 182-189.
- Jouriles, E. N., Barling, J. & O'Leary, K. D. (1987). Predicting child behavior problems in maritally violent families. *Journal of Abnormal Child Psychology*, **15**, 165-173.
- Jouriles, E. N., Pffiffer, L. J. & O'Leary, S. G. (1988). Marital conflict, parenting and toddler conduct problems. *Journal of Abnormal Child Psychology*, **16**, 197-206.
- Long, N., Slater, E., Forehand, R. & Fauber, R. (1988). Continued high or reduced interparental conflict following divorce: relation to young adolescent adjustment. *Journal of Consulting and Clinical Psychology*, **56**, 467-469.
- Minuchin, S., Rosman, B. L. & Baker, L. (1978). *Psychosomatic families: anorexia nervosa in context*. Cambridge, MA: Harvard University Press.
- Patterson, G. R. (1982). *Coercive family process*. Eugene, OR: Castalia.
- Porter, B. & O'Leary, K. D. (1980). Marital discord and childhood behavior problems. *Journal of Abnormal Child Psychology*, **80**, 287-295.
- Quinton, D., Rutter, M. & Rowlands, O. (1976). An evaluation of an interview assessment of marriage. *Psychological Medicine*, **61**, 577-586.
- Richman, N., Stevenson, J. & Graham, P. J. (1982). *Pre-school to school: a behavioural study*. London: Academic Press.
- Robins, L. N. & Ratcliff, K. S. (1978). Risk factors in the continuation of childhood antisocial behaviour in adulthood. *International Journal of Mental Health*, **7**, 96-116.
- Rutter, M. (1970). Sex differences in children's responses to family stress. In E. J. Anthony & C. Koupernik (Eds), *The child and his family*, Vol. 1. New York: John Wiley.
- Rutter, M. (1979). Protective factors in children's responses to stress and disadvantage. In M. W. Kent & J. E. Rolf (Eds), *Primary prevention of psychopathology*, Vol. 3. *Social competence in children*. Hanover, NH: University Press of New England.
- Rutter, M. & Brown, G. (1966). The reliability and validity of measures of family life and relationships in families containing a psychiatric patient. *Social Psychiatry*, **1**, 38-53.
- Rutter, M. & Graham, P. J. (1968). The reliability and validity of the psychiatric assessment of the child. I. Interview with the child. *British Journal of Psychiatry*, **114**, 563-579.
- Rutter, M., Tizard, J. & Whitmore, K. (1970). *Education, health and behaviour*. London: Longman.
- Rutter, M., Yule, B., Quinton, D., Rowlands, O., Yule, W. & Berger, M. (1975). Attainment and adjustment in two geographical areas. III. Some factors accounting for area differences. *British Journal of Psychiatry*, **126**, 520-533.

- Smith, M. A., Delves, T., Lansdown, R., Clayton, B. & Graham, P. (1983). The effects of lead exposure on urban children: the Institute of Child Health/Southampton Study. *Developmental Medicine and Child Neurology*, **25**, Suppl. 47, 5.
- Smith, M. A., Jenkins, J. M. & Graham, P. J. Continuities in children's behaviour, parental marriage and maternal depression. In preparation.
- Whitehead, L. (1979). Sex differences in children's responses to family stress: a re-evaluation. *Journal of Child Psychology and Psychiatry*, **20**, 247-254.
- Wolfe, D. A., Jaffe, P., Wilson, S. K. & Zak, L. (1985). Children of battered women: the relation of child behaviour to family violence and maternal stress. *Journal of Consulting and Clinical Psychology*, **53**, 657-665.
- World Health Organization (1978). *Mental disorders. Glossary and guide to their classification in accordance with the 9th revision of the international classification of disorders*. Geneva: WHO.

This document is a scanned copy of a printed document. No warranty is given about the accuracy of the copy. Users should refer to the original published version of the material.