

Section of Psychiatry

President Peter Sainsbury MD

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Why are London Children so Disturbed? [Abridged]

Professor Michael Rutter
(Institute of Psychiatry, De Crespigny Park,
Denmark Hill, London SE5 8AF)

In many respects the Isle of Wight is reasonably representative of England as a whole (Rutter *et al.* 1970) and our findings on the prevalence of child psychiatric disorder could safely be generalized to other areas of small towns. However, it would be unwise to assume that the situation would be the same in the major cities with their very different life circumstances. Accordingly, the present study was designed to determine if there were differences in the rates of child psychiatric disorder between an inner London borough and the Isle of Wight; and, if differences were found, to examine reasons for the differences in order to elucidate possible causal or precipitating factors which might suggest what remedies were required.

Methods

Children aged 10 years were selected as the population for study. The London borough was one for which extensive information was already available from other studies (Wing & Hailey 1972) and which, in most respects, was reasonably typical of the inner London area.

The strategy of investigation followed was based on the earlier Isle of Wight surveys (Rutter *et al.* 1970). A two-stage procedure was used to identify children with psychiatric disorder. First, the total population was studied using a revised version of our teacher's questionnaire (Rutter 1967) as the screening instrument. On this basis, children were selected for further study, either if they formed part of a randomly selected control group or if they had deviant scores on the teacher's questionnaire. In the second stage this group of children was studied intensively by means of a standardized parental interview of demonstrated reliability (Graham & Rutter 1968) and an individual diagnosis was made for each child.

As the teacher's questionnaire was the sole screening instrument, the prevalence figures for both areas were underestimates of true prevalence. However, as the object of the study was to estimate the relative difference between the two areas in rates of disorder, this did not matter for our purposes, so long as the underestimate was similar in each case (a point which we checked).

Whereas the Isle of Wight population at the time of study included almost no children whose parents were immigrant, the London population included a substantial minority of such children. Accordingly, in order to provide comparable groups of children from both areas, the children from immigrant families were excluded from this comparison.

Prevalence

The rate of deviance (as assessed from the teacher's questionnaire) in London (ILB) children was nearly double that in Isle of Wight (IOW) boys and girls (Fig 1). Overall, the deviance rate in London was 19.1% compared to 10.6% on the Isle of Wight ($P < 0.001$). Both 'neurotic' or emotional type deviance and 'conduct' type deviance were considerably more frequent in the London 10-year-olds ($P < 0.001$) (Fig 2). The findings for individual items on the questionnaire

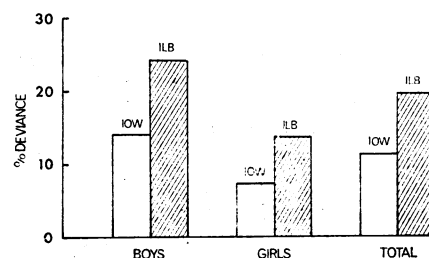


Fig 1 Deviance on teacher questionnaire in IOW and ILB

showed that deviance of almost all types was much more frequent in London. A series of checks showed that deviant scores had the same meaning and that the questionnaire was an equally valid screening instrument in the two areas, confirming that there was a true area difference in rates of deviant behaviour (Rutter, Cox, Tupling, Berger & Yule 1973). Nevertheless, deviance is not the same as psychiatric disorder which includes considerations of developmental course and of impaired function and requires individual diagnosis.

In London nearly 12% of boys showed psychiatric disorder compared with 6% on the Isle of Wight (Fig 3). About 5% of ILB girls showed psychiatric disorder – a rate double that on the Isle of Wight. Overall, the London rate was just over 8% compared with 4% on the Island. It may

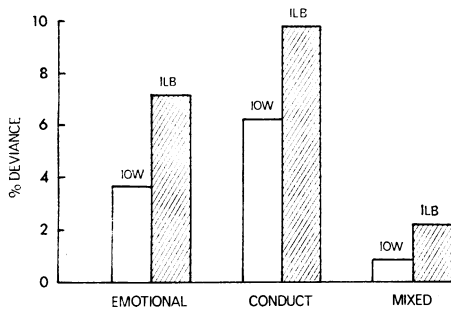


Fig 2 Type of deviance in IOW and ILB

be concluded that 10-year-old children living in inner London not only show more behavioural deviance than do IOW children of the same age, but also they exhibit more psychiatric disorder. It was again necessary to search for possible biasing factors which might account for the differences in prevalence; none was found (Rutter, Cox, Tupling, Berger & Yule 1973).

A parallel study (Berger, Yule & Rutter 1973, in preparation) showed that specific reading retardation was also twice as frequent in ILB children as in IOW children.

Reasons for Differences

The next question is why the rate of psychiatric disorder should be so much higher in London. For this purpose we followed a strategy which utilized a two-stage approach: (1) To identify the factors associated with psychiatric disorder *within* the inner London borough and *within* the Isle of Wight. (2) To determine if there were differences *between* the London borough and the Isle of Wight with respect to those same adverse influences associated with disorder *within* the two populations.

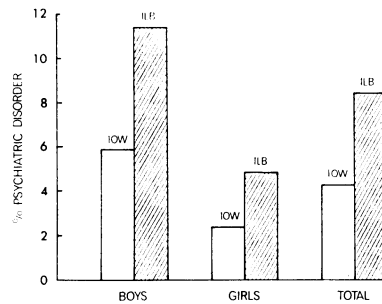


Fig 3 Prevalence of psychiatric disorder in IOW and ILB (after teacher questionnaire screening only)

(1) The parental interview was used to assess family interaction, relationships and style of life (Brown & Rutter 1966, Rutter & Brown 1966). Systematic and standardized techniques of known reliability were used to evaluate both attitudes or feelings and events or activities in the home. A much shorter interview was carried out with fathers, and both parents completed a health questionnaire. The two local authorities kindly provided information on school characteristics. This paper outlines only the main trends; more detailed findings are given elsewhere (Rutter, Yule, Quinton, Rowlands, Yule & Berger 1973).

In both areas severe marital discord was considerably commoner in the families of children with psychiatric disorder (Fig 4), meaning that unhappy, disruptive, quarrelsome homes are associated with psychiatric disorder in the children. Probably for the same reason, a 'broken home' (that is a home in which the child is not living with his two natural parents) was also associated with psychiatric disorder in London. It was not in the Isle of Wight to the same extent but this is explicable in terms of the very different circum-

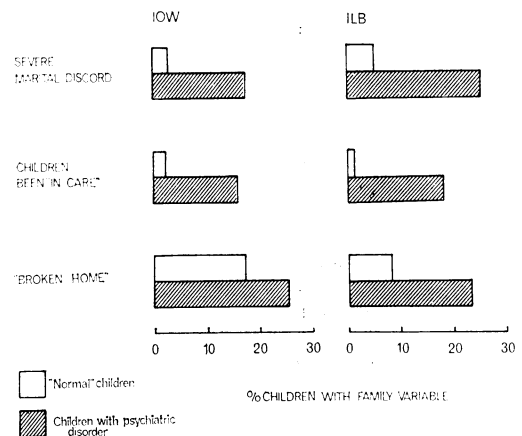


Fig 4 Family disturbance and child psychiatric disorder in IOW and ILB

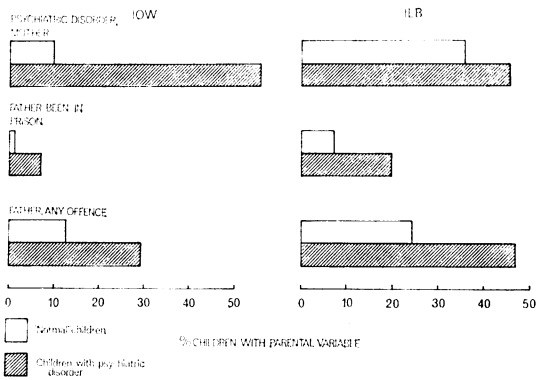


Fig 5 Parental deviance and child psychiatric disorder in IOW and ILB

stances associated with broken homes in the two areas. The proportion of children admitted 'into care' and placed in children's homes or with foster families is another index of family disturbance. Children admitted to short-term, as well as long-term care, frequently come from and return to disturbed families (Schaffer & Schaffer 1968, Wolkind & Rutter 1973). Among the normal children in both areas only about 2% had been admitted into care for as long as one continuous week, but among those with psychiatric disorder the proportion was 16–19%. It may be concluded from these findings that, as in other studies (Rutter 1971), family discord and disturbance is strongly associated with psychiatric disorder in the children.

Psychiatric disorder in the mother, as assessed from a systematic interview with her, was strongly associated with psychiatric problems in the IOW children (Fig 5). Half the mothers of children with psychiatric disorder had some form of psychiatric disorder themselves, compared to a rate of only 10% in the mothers of normal children. Most of the disorders in the mothers consisted of mild, chronic or recurrent depressive or neurotic conditions. The same association of disorder between mother and child was not found in London largely because of the very high rate of disorder in the mothers of the normal children. In both populations the mean score on a health questionnaire which tapped neurotic and psychosomatic symptoms of mothers of children with psychiatric disorder was significantly above that of the mothers of normal children.

Few of the fathers in both normal groups had been in prison and the rate in the fathers of the children with disorder was three times as high (difference short of significance). Considering any proven offences against the law, again the rate was twice as high in the fathers of children with

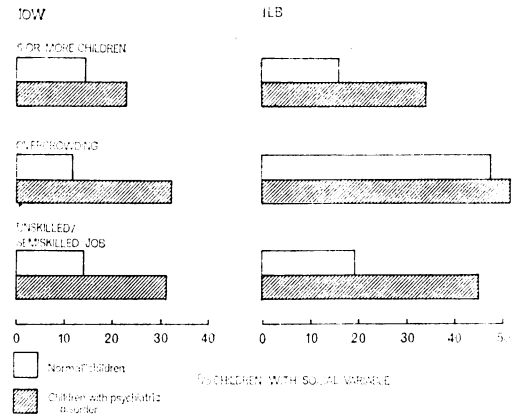


Fig 6 Social circumstances and child psychiatric disorder in IOW and ILB

psychiatric disorder. Thus, as found in previous studies (Rutter 1966), parental illness and deviance of various sorts were associated with child psychiatric disorder.

In both London and the Isle of Wight large family size was associated with problems in the children (Fig 6). The cut-off point which differentiated the groups of normal and disordered children was different in the two cases and, although in Fig 6 the association appears stronger in London, in fact it was generally stronger in the Isle of Wight. This is illustrated by the findings on overcrowding where the difference is stronger on the Isle of Wight. In both populations there was an association between child psychiatric disorder and father's job, disorder being commoner when the father held a semi- or unskilled job; this association was more marked in London. In short, there was a tendency for various sorts of social disadvantage or low social status to be associated with disorder in the children.

So far, school characteristics have only been analysed for the inner London borough, and Fig 7 presents the findings in terms of deviance on the teacher's questionnaire. Several school attributes were strongly associated with deviance in the children. Deviance ran at a high rate in schools with a high turnover of teachers or children, with a high proportion of children entitled to free meals, or with a large proportion of 'non-indigenous' children – that is children with immigrant parents. Of course, particularly with these last two variables, the findings might reflect selective factors in the children admitted to the schools rather than anything about the schools themselves. In order to reduce the possible effect of selective intake, the findings in Fig 7 are given after exclusion of all free-meals children and all non-indigenous children. The findings are just as strong after exclusion of these children and the

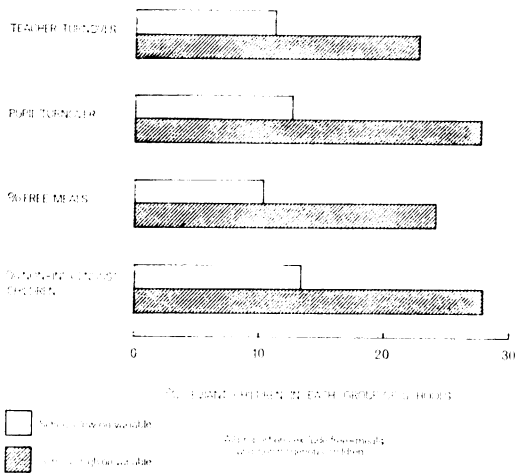


Fig 7 School characteristics and child deviance (ILB)

results suggest that, however it may be caused, something in the school itself plays some part in the association with deviance in the children.

These findings have been solely concerned with the factors associated with deviance in the children *within* the two areas. It was found that in both populations child psychiatric disorder was associated with family disturbance, parental deviance, social disadvantage and features of the schools.

(2) The next stage of the investigation was to determine, with respect to these same variables, whether there was any difference *between* the two populations. For this purpose, the two randomly chosen control groups were compared.

The average marriage rating for the London families was somewhat 'worse' than for the Isle of Wight families and more children were admitted into short-term care. The official Home Office figures (1970) were used for the number of children currently in long-term care in the two areas. The rate of children in care for the borough of which our area now forms part was 12.5 per 1000, nearly three times the rate for the Isle of Wight (Fig 8).

Twice as many London fathers had been convicted of some offence and seven times as many had been to prison. Psychiatric disorder in the mothers was over twice as common in London and the health questionnaire score of both parents was also higher in the metropolis.

There was a tendency for semi- and un-skilled jobs to be commoner among London fathers (difference short of significance). Overcrowding,

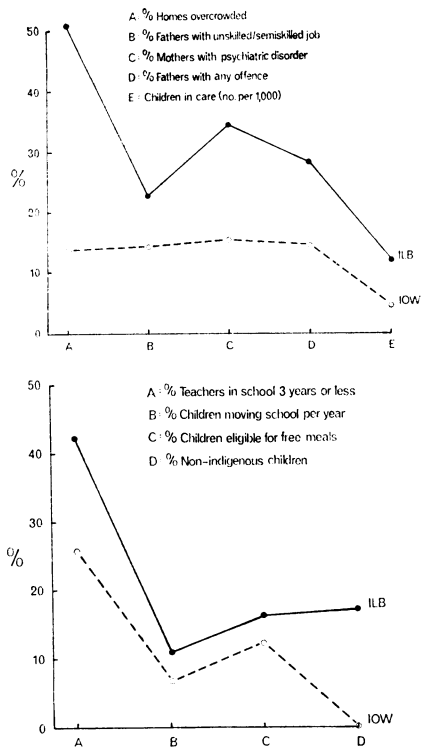


Fig 8 Above: family/social characteristics in IOW and ILB. Below: school characteristics in IOW and ILB. IOW/ILB differences can be gauged from the difference in height between the curves; the shape of the curves is of no significance and the graphic method of presentation does not imply continuity between points

however, was nearly four times as frequent, and large families (4 or more children) were nearly three times as common in London. In short, the family, parental and social circumstances associated with child psychiatric disorder were much more a feature of London than of the Isle of Wight.

All the features associated with deviance were commoner in the inner London borough than in the Isle of Wight (Fig 8). Thus, 43% of the London teachers had been with the authority for three years or less compared with 26% on the Isle of Wight. In London there was an 11% pupil turnover as against 7% on the Island. The proportion of free-meals children was higher and there was an average of 18% non-indigenous children compared with 0% on the Isle of Wight.

Discussion

The conclusions of this two-area study of child psychiatric disorder are, therefore, reasonably clear-cut. It was possible to identify four sets of

variables which were associated with child disorder *within* the two communities, and in almost all cases these same factors also differentiated *between* the two communities. In so far as these factors may be regarded as contributing to causal influences (and there is evidence from other studies that they do), it may be concluded that the high prevalence of psychiatric disorder in London 10-year-olds is due in part to the fact that a relatively high proportion of London families are discordant and disrupted, that families are often large and living in overcrowded homes which they do not own, and that the schools are more often characterized by a high rate of turnover in staff and pupils. These findings provide important clues as to aspects of family life, social circumstances and school conditions which require attention if the rate of child psychiatric disorder is to be reduced. Nevertheless, it is important to recognize that we know relatively little about the mechanisms involved. Many of the factors are interrelated and our preliminary analyses have so far done little to separate the effects of each variable.

Our findings on primary school differences, which are in keeping with other studies of secondary schools (Power *et al.* 1972; Gath *et al.* 1972), are important in suggesting that some schools may be more successful than others in reducing the rates of problems in their children. But what is it about the school which makes the difference? Is it the way the teachers respond to the children or does the answer lie in the nature of peer-group pressures? Is it a question of group 'morale', of quality of teaching, of attitudes to attainment or of the type of contact between school and home? What help needs to be given to schools to enable them to do their job better? We do not know but we need to find out.

Similar issues arise in the disentangling of the psychological and social processes underlying the associations between family and social circumstances and disorder in the children. There is a great need to separate out the different mechanisms involved in the various types of privation, deprivation and distortion of family life and relationships (Rutter 1972).

Finally, it is necessary to add that our conclusion, that the area differences in child psychiatric disorder are partially explicable in terms of area differences in family and school characteristics, only pushes the questions back one stage further. Why is psychiatric disorder commoner in the mothers of London children than in the mothers of Isle of Wight children? Why are there higher rates of criminality and discord? The answer does

not lie in terms of deviant and disturbed families drifting to London, because the rate of disorder is just as high in children born and bred in London of parents born and bred in London as in migrants from other parts of Britain. So far we have not been able to determine whether it is due to selective out-migration, but we are examining that possibility in a separate four-year longitudinal study. Nor does it appear to be due to higher rates of biological damage during the birth process in London. Perinatal mortality rates were closely similar in the two populations at the time of the children's birth (Registrar-General 1962). Genetic data are lacking but it seems unlikely that the answer lies there in view of the high rate of population turnover in London. By a process of exclusion it seems that it must be something about life in an inner London borough which predisposes to deviance, discord or disorder. We hope to take the problem further by other analyses of our data but it is clear that further work will be required to answer the questions about what it is about life in London which leads to these problems. The answer to that question should have far-reaching implications for social policy as well as service provision.

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