PSYCHOSOCIAL PROFILES OF IRISH CHILDREN WITH CONDUCT DISORDERS, MIXED DISORDERS OF CONDUCT AND EMOTION AND EMOTIONAL DISORDERS

_Jacqueline Byrne & Alan Carr_

**INTRODUCTION**

Prevalence rates for psychological disorder in Irish children range from 10 to 17%. These rates are based on interview and questionnaire data from three major epidemiological studies involving over 4000 children conducted in Dublin, Clare and Cork in the past decade (Carr, 1993). In the Dublin study an overall prevalence rate based on questionnaire data of 17% was found with a rate of 13% for conduct disorders and 4% for emotional disorders (Jeffers & Fitzgerald, 1991). The particularly high prevalence rate for conduct disorders found in this investigation and the poor prognosis associated with this condition which has been found in research projects conducted in other countries (Earls, 1994) suggests that further study of conduct problems within an Irish context is warranted.

While there is an extensive international literature on the classification of conduct disorders and their correlates (e.g. Earls, 1994; Farrington et al, 1990), few Irish studies have been conducted (e.g. Hart, 1969; Hart, 1973; Hart & McQuaid, 1974; O'Mahony, Cullen and O'Hora, 1985). Hart (1973), in a study of young offenders and Hart & McQuaid (1974), in a study of referrals to the
Department of Child and Family Psychiatry at the Mater Hospital in Dublin, used Multivariate statistical procedures to identify subtypes of conduct disordered youngsters with distinctive profiles. Two subgroups, common to both studies, emerged. The first exhibited unsocialized aggression and was characterized by dysfunctional family membership. The second exhibited a variety of conduct problems in association with emotional difficulties such as anxiety or depressed mood and this group also was characterized by family dysfunction. These subgroups correspond roughly to the classifications of unsocialized conduct disorder and mixed disorder of emotion and conduct outlined in Chapter Five of the ninth and tenth revisions of the International Classification of Diseases (ICD-9, Rutter, Shaffer & Sturge, 1975; ICD-10, WHO, 1992) and it is these two diagnostic categories that are the focus of the present study.

Subgroups corresponding roughly to the ICD-10 socialized conduct disorder and hyperkinetic conduct disorder category emerged clearly in Hart and McQuaid's studies but few cases falling into these categories were contained in the Hospital referrals study. In the present investigation, a preliminary case note review of referrals received during the two year period from January 1990 to December 1991 confirmed that an insufficient number of such cases were being referred to warrant inclusion in the present study. The aim of the research project described in this paper was to retrospectively identify correlates of cases where diagnoses of unsocialized conduct disorder or mixed disorder of emotions and conduct had been given. Cases receiving a diagnosis of emotional disorder were included in the study as a comparison group.

In establishing the correlates of these disorders, we wished to focus not only on areas of conceptual importance such as the child's behavioural characteristics, the family's psychosocial attributes and treatment outcome, but
also on areas where data could readily be abstracted from the clinical notes of almost all cases identified. These were guiding considerations in selecting the instruments described below in the method section.

**METHOD**

The study was conducted at the Mater Misericordiae Hospital, Dublin. The Department of Child and Family Psychiatry of this major national teaching hospital receives routine referrals from a catchment area on the north side of Dublin with a population in excess of 500,000 in addition to receiving specialist referrals from all sections of the country.

**Participants**

Cases were included in the study if they first attended the clinic in 1990 or 1991, if the case was closed by December 1993 and if the child with the main presenting problem received a primary ICD-9 diagnosis of unsocialized conduct disorder, emotional disorder or mixed disorder of emotions and conduct. Eighty-four cases met these inclusion criteria including 41 conduct disorder cases, 23 emotional disorder cases and 20 cases with a diagnosis of mixed disorder of emotions and conduct. Where there was any doubt about the primary diagnosis, cases were excluded.

**Instruments**
Data for this study were drawn from an intake information item sheet (Mandos, 1991) and abstracted from the clinical case notes using Loeber and Schmaling's (1985a) Overt-Covert behaviour scale, Rutter, Shaffer and Sturge's (1975) guide for axis 5 of ICD-9 and an outcome rating scale.

**Item sheet.** As a routine part of the Department's intake procedure a standard item sheet is completed on all new referrals. Of relevance to this study is the fact that information about the following areas is coded on the item sheet: the child's age, gender, number of siblings, marital status of the parents, parental occupation, area of residence, primary and secondary ICD-9 diagnoses, and treatment received.

Rutter, Shaffer and Sturge's (1975) guide was used by clinicians managing cases to make ICD-9 diagnoses as part of the clinic's intake procedure. Cases given a diagnosis of conduct disorder were characterised by behaviours such as defiance, disobedience, quarrelsomeness, aggression, destructive behaviour, tantrums, solitary stealing, lying, teasing, bullying, and disturbed relationships with others. Youngsters categorized as displaying emotional disorders showed significant adjustment difficulties associated with some combination of the following symptoms: anxiety and fearfulness; depressed mood, misery and unhappiness; sensitivity, shyness and social withdrawal; and affective relationship problems. In these cases the features of conduct disorder were absent. Cases given a diagnosis of mixed disorder of conduct and emotion showed behaviours listed for conduct disorder in addition to considerable emotional disturbance, as shown, for example, by anxiety or depressed mood.
Information on parental occupation taken from the item sheet was used by the research team to determine Socio-economic status (SES) using O'Hare, Whelan and Commins' (1991) SES classification system.

**Figure 5.1. Overt-Covert Behaviour Scale**

| OVERT ANTISOCIAL BEHAVIOUR | 1.0 | Hyperactive  
|                           |     | Argues  
|                           |     | Impulsive  
|                           |     | Aggressive  
|                           |     | Screams  
|                           |     | Demanding  
|                           |     | Jealous  
|                           |     | Sulks  
|                           |     | Poor peer relations  
|                           |     | Temper tantrums  
|                           |     | Attacks people  
|                           |     | Loud  
|                           |     | Threatening  
|                           |     | Cruel  
|                           | 0.5 | Irritable  
|                           |     | Fights  
|                           |     | Disruptive  
|                           |     | Shows off  
|                           |     | Brags  
|                           |     | Swears  
|                           |     | Sassy  
|                           |     | Blames others  
|                           |     | Disobedient  
|                           | 0.0 | Negative  
|                           | -0.5 | Lies  
|                           | -1.0 | Destructive  

<table>
<thead>
<tr>
<th>COVERT ANTISOCIAL BEHAVIOUR</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1.5</td>
</tr>
<tr>
<td>-2.0</td>
</tr>
</tbody>
</table>

**Overt-covert behaviour rating scale.** This scale developed by Loeber and Schmaling (1985a) allows the type of behaviour problems of a particular case to be reliably coded from case notes along a bipolar continuum from overt antisocial behavioural problems, such as fighting, to covert antisocial behaviour problems, such as stealing. Overt behaviour problems include those described as hyperactive, impulsive, demanding, threatens, temper tantrums, attacks people, argues, loud, cruel, fights, teases, poor peer relations, irritable, moody, screams, sulks and jealous. The other end of the dimension contains covert antisocial behaviours such as stealing, firesetting, lies, runs away, truant and keeps delinquent company. In comparison with overt behaviour, covert behaviour has been found to characterize conduct disordered youngsters who come from families which show more extreme dysfuntionality, i.e. families which are particularly punitive, harsh and restrictive (Loeber, Weissman & Reid, 1983) or exceptionally lax and permissive (Farrington, 1978). In the present study the number of overt behaviours, the number of covert behaviours and the total number of antisocial overt and covert behaviours were determined for each case by reviewing the clinical case notes.
Abnormal psychosocial situations. These were coded using the axis 5 categories of Rutter, Shaffer and Sturge's (1975) multiaxial classification system for ICD-9 childhood and adolescent psychiatric disorders. Axis 5 contains 15 specific categories of which the following are typical exemplars: Lack of warmth in intra-familial relationships; Familial overinvolvement; and Inadequate or inconsistent parental control. Preliminary data on the interrater reliability of the categories which constitute the axis have been presented by Remschmidt (1988).

Outcome rating scale. Outcome for each case was rated as improved, deteriorated, dropped out or other. A similar rating scale has been reliably used in an audit of practice at another child and family centre (e.g. Carr, Mc Donnell & Owen, 1994). Cases were classified as improved if some or all of the presenting problems were resolved when the case was closed and if contact was concluded at the staff's recommendation rather than through dropout. A rating of deterioration was given to cases which, despite co-operation with treatment, showed a worsening of problems and symptoms. Cases where contact with the service was broken against the recommendation of the staff were classified as dropouts. Cases which did not fall into these three categories and where clear information was available were classified as other. A missing data code was given in cases where information on outcome was not clearly recorded, or where consultation with clinical staff who were involved with the case did not yield an unambiguous rating.

Procedure and data management
Data were taken from the item sheet and abstracted from the clinical case notes and put on IBM record sheets. Where data were missing or where there was ambiguity about the status of a case on a particular variable, the clinician who managed the case was contacted and asked to supply the missing information. Despite this, as in all archival studies, there were some missing data.

Across all variables missing data ranged from 0%-17%. For demographic, comorbidity and treatment variables only 1% of the data were missing. 14% of the data were missing for the overt-covert antisocial behaviour scale and the adverse psychosocial circumstances variables. 17% of the data on outcome were missing. Precise details on missing data are given in notes beneath Tables 5.1-5.5.

Data were entered into an IBM compatible 486 personal computer and verified and analysed using SPSS for Window's statistical analysis software. The groups were compared on categorical variables using Chi Square tests and for post-hoc analysis the procedure of partitioning of degrees of freedom was used (Siegal & Castellan, 1988). Inter-group comparisons on all interval scale variables were conducted using one-way ANOVA's and post-hoc analyses were conducted with Scheffé tests.

RESULTS

Demographic characteristics

The three groups did not differ significantly on any of the demographic variables listed in Table 5.1. It may be concluded, therefore that the groups were similar
with respect to age, sex ratio, socio-economic status, and the distribution of cases across different types of residential areas.

**Table 5.1. Demographic characteristics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Conduct Disorder (N=41)</th>
<th>Mixed Disorder (N=20)</th>
<th>Emotional Disorder (N=23)</th>
<th>Chi Square or F value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>71%</td>
<td>60%</td>
<td>48%</td>
<td>3.32</td>
<td>NS</td>
</tr>
<tr>
<td>Female</td>
<td>29%</td>
<td>40%</td>
<td>52%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>Mean: 9.44 SD: 4.72</td>
<td>Mean: 8.80 SD: 3.25</td>
<td>Mean: 9.78 SD: 3.28</td>
<td>0.32</td>
<td>NS</td>
</tr>
<tr>
<td>SES</td>
<td>1: 2%  2: 15%  3: 0%  4: 9%  5: 5%  6: 18%  Unknown: 24%</td>
<td>0%  15%  0%  35%  20%  12%  10%</td>
<td>2%  15%  0%  41%  20%  12%  18%</td>
<td>15.1</td>
<td>NS</td>
</tr>
<tr>
<td>Parents in house</td>
<td>1: 25%</td>
<td>9%</td>
<td>20%</td>
<td>2.5</td>
<td>NS</td>
</tr>
<tr>
<td></td>
<td>2: 75%</td>
<td>91%</td>
<td>80%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of children</td>
<td>Mean: 3.53 SD: 1.74</td>
<td>Mean: 3.06 SD: 2.33</td>
<td>Mean: 3.34 SD: 1.18</td>
<td>0.48</td>
<td>NS</td>
</tr>
</tbody>
</table>

**Note:** For SES variable in the emotional disorder group, n = 22. For Parents in House variable, in conduct disorder group, n=20. *Percentages of the national population falling into each of 6 social class groups based on the 1986 Irish census (CSO, 1989) are given in this column but not included in the calculation of the Chi square.

The average number of children in the family was similar for all three groups and the groups contained comparable numbers of cases from single and two-parent families. From Table 5.1 it may be concluded that the bulk of the cohort
comprised boys of about nine years from SES groups four through six and these youngsters came largely from two parent families with three children.

**Behavioural problems and comorbidity**

From Table 5.2 it may be seen that the three groups differed significantly in the types of behaviour problems that they displayed but not in comorbidity for other diagnoses.

**Table 5.2. Types of behavioural problems and comorbidity**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Chi Square</th>
<th>p</th>
<th>Post hoc comparisons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Conduct Disorder (N=41)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mixed Disorder (N=20)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Emotional Disorder (N=23)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overt behaviour problems</td>
<td>M 3.51 SD 2.08</td>
<td>15.42</td>
<td>.001</td>
<td>2&gt;1&gt;3</td>
</tr>
<tr>
<td>Covert behaviour problems</td>
<td>M 1.87 SD 1.87</td>
<td>7.45</td>
<td>.001</td>
<td>1&gt;2,3</td>
</tr>
<tr>
<td>Total behaviour problems</td>
<td>M 5.38 SD 2.39</td>
<td>21.49</td>
<td>.001</td>
<td>2&gt;1&gt;3</td>
</tr>
<tr>
<td>Comorbidity</td>
<td>12% 10% 0%</td>
<td>3.39</td>
<td>NS</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** For Overt, Covert & Total behaviour problem variables, in the conduct disordered group, n=37; in the mixed disorder group, n=16; for the emotional disorder group, n=19. For the comorbidity variable in the emotional disorder group, n=22.

The conduct disorder group showed more covert behaviour problems than the other two groups. They also had a higher total number of behaviour problems and a greater number of overt behaviour problems than the emotional disorder
group. However, they showed fewer overt behaviour problems than the mixed disorder group and obtained lower total behaviour problem scores than the mixed disorder group.

The mixed disorder group displayed more overt behaviour problems and obtained a higher total behaviour problem score than the other two groups. However, they were characterized by fewer covert behaviour problems than the conduct disordered group. They held this in common with the emotional disorder group.

The lowest mean scores on the overt, covert and total behaviour problem scales were obtained by the emotional disorder group.

**Adverse psychosocial circumstances**

In Table 5.3 the status of the three groups on adverse psychosocial circumstances from axis 5 of the ICD-9 are presented. The items are ordered according to the size of the overall chi square value obtained from comparison of the three groups. Thus, items at the top of the table are those on which the three groups differed a great deal and those at the bottom of the table are those on which the groups differed little. The groups differed significantly on only two items: inadequate parental control and anomalous family situation. Both factors were more prevalent in the conduct disordered group and the mixed disorder group. There was also a near significant trend (p<.07) for the emotional disorder group to show a greater prevalence of family overinvolvement.

Definitions of the three adverse psychosocial circumstances on which the three groups differed will be given here to aid interpretation of the results. These definitions are drawn from Rutter, Schaffer and Sturge's (1975) manual.
Table 5.3. Adverse psychosocial circumstances

<table>
<thead>
<tr>
<th>Variable</th>
<th>Conduct Disorder</th>
<th>Mixed Disorder</th>
<th>Emotional Disorder</th>
<th>Chi Square or F value</th>
<th>p</th>
<th>Post hoc comparisons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate parental control</td>
<td>68%</td>
<td>50%</td>
<td>26%</td>
<td>8.64</td>
<td>.01</td>
<td>1,2&gt;3</td>
</tr>
<tr>
<td>Anomalous family situation</td>
<td>24%</td>
<td>13%</td>
<td>0%</td>
<td>5.86</td>
<td>.05</td>
<td>1,2&gt;3</td>
</tr>
<tr>
<td>Family overinvolvement</td>
<td>11%</td>
<td>6%</td>
<td>32%</td>
<td>5.48</td>
<td>.07</td>
<td>3&gt;2,1</td>
</tr>
<tr>
<td>Discordant intrafamilial relations</td>
<td>43%</td>
<td>25%</td>
<td>21%</td>
<td>3.42</td>
<td>.18</td>
<td></td>
</tr>
<tr>
<td>Work or school based stress</td>
<td>16%</td>
<td>38%</td>
<td>32%</td>
<td>3.29</td>
<td>.19</td>
<td></td>
</tr>
<tr>
<td>Inadequate intrafamilial communication</td>
<td>3%</td>
<td>13%</td>
<td>0%</td>
<td>2.26</td>
<td>.32</td>
<td></td>
</tr>
<tr>
<td>Inadequate stimulation</td>
<td>3%</td>
<td>13%</td>
<td>5%</td>
<td>2.05</td>
<td>.36</td>
<td></td>
</tr>
<tr>
<td>Intrafamilial stress</td>
<td>60%</td>
<td>75%</td>
<td>58%</td>
<td>1.38</td>
<td>.50</td>
<td></td>
</tr>
<tr>
<td>Mental disturbance in another family member</td>
<td>38%</td>
<td>31%</td>
<td>32%</td>
<td>0.33</td>
<td>.85</td>
<td></td>
</tr>
<tr>
<td>Extrafamilial stress</td>
<td>32%</td>
<td>25%</td>
<td>32%</td>
<td>0.30</td>
<td>.86</td>
<td></td>
</tr>
<tr>
<td>Inadequate living conditions</td>
<td>11%</td>
<td>6%</td>
<td>11%</td>
<td>0.28</td>
<td>.87</td>
<td></td>
</tr>
<tr>
<td>Lack of warmth in intrafamilial relationships</td>
<td>16%</td>
<td>19%</td>
<td>21%</td>
<td>0.21</td>
<td>.90</td>
<td></td>
</tr>
<tr>
<td>Total number of adverse psychosocial</td>
<td>M 3.41</td>
<td>3.19</td>
<td>2.68</td>
<td>1.14</td>
<td>NS</td>
<td></td>
</tr>
<tr>
<td>circumstances</td>
<td>SD 1.64</td>
<td>2.14</td>
<td>1.34</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: For all variables there were missing data for 4 conduct disorder cases, 4 mixed disorder cases and 4 emotional disorder cases.
Inadequate or inconsistent parental control includes family circumstances characterized by a marked lack of effective control or supervision of the child's activities when judged in relation to the child's maturity level and the socio-familial context.

An anomalous family situation included residence in an institutional environment (other than that arising from a limited episode of hospital care), a single parent family, a family headed by a homosexual couple, a foster family, or multiple parenting situations when there was no immediate family context. Excluded from this coding were past separations or break-up of the family unless associated with a current anomalous family situation; upbringing by a married couple, one or both of whom were not biologically related to the child or communal upbringing when there was also a family group.

Familial over-involvement refers to family contexts characterized by a marked excess of intrusiveness (such as by over-protection, over-restriction or undue emotional stimulation etc.) by another family member when judged in relation to the patient's maturity level and the socio-familial context. Increased control which is appropriate to the patient's developmental level and behaviour was excluded from this category.

Significant intergroup differences did not occur on the remaining 9 adverse psychosocial circumstances listed in Table 5.3. Four adverse psychosocial circumstances from axis 5 of the ICD 9 were omitted from Table 5.3 because of the low frequency of their occurrence or their absence. One case in the conduct disorder group had experienced social transplantation, another had experienced adverse discrimination. A disturbance in society and a natural disaster were absent for all cases studied.

The differences between the three groups' mean number of adverse psychosocial circumstances were not statistically significant.
Treatment

The percentages of each group receiving four different treatment approaches are given in Table 5.4. Cases typically received more than one type of treatment so percentages in any column sum to more than 100.

The proportion of cases in each group receiving family therapy and parent focused therapy differed significantly. Fewer cases with mixed disorders received family therapy and more of these cases received parent focused therapy. There was no significant difference in the proportion of cases with conduct or emotional disorders receiving these two treatments.

There was a near significant trend (p<.07) for a lower proportion of cases in the conduct disordered group to receive child focused individual therapy.

Intergroup differences in the percentage of cases receiving child behaviour therapy were not statistically significant, although the majority of cases in each group received this treatment.

Table 5.4. Treatment.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Conduct Disorder (N=41)</th>
<th>Mixed Disorder (N=20)</th>
<th>Emotional Disorder (N=23)</th>
<th>Chi Square or F value</th>
<th>p</th>
<th>Post hoc comparisons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family therapy</td>
<td>32%</td>
<td>0%</td>
<td>14%</td>
<td>8.97</td>
<td>.01</td>
<td>1,3&gt;2</td>
</tr>
<tr>
<td>Parent focused therapy</td>
<td>56%</td>
<td>84%</td>
<td>45%</td>
<td>6.82</td>
<td>.03</td>
<td>2&gt;1,3</td>
</tr>
<tr>
<td>Child focused individual therapy</td>
<td>27%</td>
<td>47%</td>
<td>55%</td>
<td>5.35</td>
<td>.07</td>
<td>2,3&gt;1</td>
</tr>
<tr>
<td>Child behaviour therapy</td>
<td>61%</td>
<td>79%</td>
<td>50%</td>
<td>3.69</td>
<td>.16</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** For all variables data were missing for 1 mixed disorder case and 1 emotional disorder case.
## Outcome

There was a significant relationship between outcome and diagnosis. Significantly more cases with emotional disorders improved in comparison with conduct and mixed disorders.

Significantly more conduct disorder cases dropped out of treatment in comparison with mixed disorder or emotional disorder cases.

Intergroup differences in the proportion of cases that deteriorated or for which no decision on outcome could be reached were not significant.

### Table 5.5. Outcome.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Conduct Disorder (N=36)</th>
<th>Mixed Disorder (N=15)</th>
<th>Emotional Disorder (N=19)</th>
<th>Post hoc comparisons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved</td>
<td>39%</td>
<td>27%</td>
<td>74%</td>
<td>3&gt;1,2</td>
</tr>
<tr>
<td>Dropped out</td>
<td>50%</td>
<td>27%</td>
<td>0%</td>
<td>1&gt;2,3</td>
</tr>
<tr>
<td>Deteriorated</td>
<td>0%</td>
<td>13%</td>
<td>16%</td>
<td>NS</td>
</tr>
<tr>
<td>Other</td>
<td>11%</td>
<td>33%</td>
<td>11%</td>
<td>NS</td>
</tr>
</tbody>
</table>

**Note:** Overall chi square = 20.43, df = 6, N= 84, p<.01. Outcome data were missing for 5 conduct disorder cases, 5 mixed disorder cases and 4 emotional disorder cases.

## Profiles of diagnostic groups

From the data presented in Tables 5.1 to 5.5 the profiles set out in Table 5.6 were drawn up.
Conduct disordered cases showed a predominance of covert behaviour problems, came from anomalous family situations with inadequate parental control, received family therapy and were more likely to drop out of treatment.
Table 5.6. Profiles of the three diagnostic groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group</th>
<th>Conduct Disorder</th>
<th>Mixed Disorder</th>
<th>Emotional Disorder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of behaviour problems</td>
<td>Overt behaviour Problems</td>
<td>X</td>
<td>XX</td>
<td>O</td>
</tr>
<tr>
<td></td>
<td>Covert behaviour Problems</td>
<td>XX</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Total Behaviour problems</td>
<td>X</td>
<td>XX</td>
<td>O</td>
</tr>
<tr>
<td>Adverse psycho-social circumstances</td>
<td>Inadequate parental control</td>
<td>XX</td>
<td>XX</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Anomalous family situation</td>
<td>XX</td>
<td>XX</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Family over-involvement</td>
<td>X</td>
<td>X</td>
<td>XX</td>
</tr>
<tr>
<td>Treatment</td>
<td>Family therapy</td>
<td>XX</td>
<td>X</td>
<td>XX</td>
</tr>
<tr>
<td></td>
<td>Parent focused therapy</td>
<td>X</td>
<td>XX</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Child focused therapy</td>
<td>X</td>
<td>XX</td>
<td>XX</td>
</tr>
<tr>
<td>Outcome</td>
<td>Improved</td>
<td>X</td>
<td>X</td>
<td>XX</td>
</tr>
<tr>
<td></td>
<td>Dropped out</td>
<td>XX</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Note: o = Has lowest level of the attribute of the three groups. X = either has an intermediate level of the attribute in comparison with the other two groups or jointly shares a lower level of the attribute with another group in comparison with the third group which has the highest level of the characteristic. XX = has the highest level of the attribute of the three groups.

Mixed disordered cases showed more behaviour problems overall and more overt behaviour problems. They came from families where there was inadequate parental control and anomalous family situations. They received more child focused individual therapy and parent focused therapy than other cases.
Emotional disorder cases showed fewer behavioural problems overall and fewer overt behavioural problems in particular. These cases tended to be characterized by familial overinvolvement in the child's problems. They received family therapy and child focused therapy. They showed greater improvement than cases from the other diagnostic groups.

**DISCUSSION**

Substantive findings arising from the study will be discussed first in the light of the international literature before addressing the methodological limitations of this research project and avenues for future research.

The comparable demographic profiles of the emotional disorder cases and the cases from both groups with conduct problems is unusual. Typically social classes 1 and 2 are underrepresented and social classes 5 and 6 are over represented in cohorts of cases of conduct disorder or mixed disorders of emotions and conduct while usually no such pattern is associated with emotional disorders (Kazdin, 1991). In the present study all three groups showed the distribution typical for conduct disorders. While 24% of the general population fall into classes 1 and 2 only 12% of the 84 cases in the present study fell into these top socio-economic groups. This suggests that either the distribution of emotional disorders across socio-economic groups in the Hospital's catchment area is similar to that for conduct disorders and mixed disorders or that some of the youngsters with emotional disorders from social classes 1 and 2 are treated elsewhere, probably privately.
The higher rates of antisocial behaviour in the conduct disordered and mixed disorder groups in comparison with the emotional disorder groups found in this study is consistent with expectations based on the international literature. Covert antisocial behaviour has been found to be associated with greater familial and personal adjustment difficulties (Loeber & Schmaling, 1985a; 1985b). The high rate of covert behaviour in the pure conduct disordered group found in this study is consistent with the finding that conduct disorders (without emotional features) reflect greater personal and familial pathology. However, high rates of any form of antisocial behaviour has also been found to be an index of severity of current and future maladjustment (Loeber & Southamer-Loeber, 1987). The particularly high rate of antisocial behaviour in the mixed disorder group found in this study is, therefore, unexpected and underlines the severity of the adjustment difficulties of this group.

The low rates of comorbidity found in this study are unusual and may reflect conservative diagnostic practices rather than features of the population studied (Caron & Rutter, 1991).

In this study, the clear difference between family profiles of cases with emotional disorders and cases with both disorders involving antisocial conduct is, broadly speaking, consistent with the international literature. More pronounced family dysfunction particularly in the area of parental control, supervision and discipline have repeatedly been found to characterize youngsters with conduct problems in comparison with those who present with emotional disorders (Earls, 1994). Anecdotal reports of the association between overinvolvement and emotional disorders of childhood abound (e.g. Minuchin, 1974) but attempts to substantiate these claims through empirical work has been unsuccessful (Steinhausen & Erdin, 1992; Vostanis, Nicholls & Harrington, 1994). The
finding of a near significant association between emotional disorders and family overinvolvement in this study is, therefore, important.

Distinctive treatment profiles characterized the three groups studied. While the majority of cases received behaviour therapy, for the conduct disordered group this was most commonly combined with family therapy only. For the emotional disorder group, along with family therapy, individual child centred therapy was commonly offered. The mixed disorder group rarely received family therapy and commonly were offered a combination of individual child focused and parent focused treatment. These distinctive profiles are probably determined in part by case characteristics and in part by the expertise of the clinic's staff. It is worth mentioning that a retrospective comparative group outcome study conducted in the Department of Psychiatry where this research was completed, found little difference in outcome for similar heterogeneous groups of cases receiving family therapy or a combination of individual parent and child focused therapy (Fitzpatrick, NicDhomnaill, & Power, 1990). The treatment profiles of the different diagnostic groups studied in this project are difficult to interpret in the light of available international literature because there is such little consensus about the most appropriate way to combine treatments such as family therapy, behaviour therapy, and individual child or parent focused therapy in the treatment of each of the three categories of disorder studied (Callias, 1994; Carr, 1991; Herbert, 1994; Kazdin, 1990; Lask, 1994).

In this study the poorer improvement rate and higher rate of dropout from treatment associated with both groups showing conduct difficulties is consistent with the international literature (Earls, 1994; Kazdin, 1991) as is better outcome which was found in our study to characterized emotional disorder cases (Harrington, 1994; Klein, 1994).
The major methodological limitation of this study is the fact that the reliability with which variables were assessed was not established. Interrater reliability is unknown for diagnosis; status on the overt-covert behaviour scale; presence or absence of adverse psychosocial circumstances; and outcome. It is therefore important to specify those aspects of the assessment process that bear on the confidence we may have in the reliability with which these variables were assessed. With respect to diagnosis, the practice within the clinic is highly conservative and diagnoses are not lightly given. Furthermore, when the retrospective review of the clinical files was being conducted if there was any doubt about the diagnosis recorded in the file, or the rating to be given on the overt-covert behaviour scale, the adverse psychosocial circumstances axis or the outcome rating scale, the case was discussed with the clinician who was primarily involved in the management of the case. If doubt still remained about the diagnosis, the case was not included in the study. If there were doubts about the status of the case on the other variables then a missing data code was given. These procedures make it highly probable that the groups studied were diagnostically homogeneous and that their response to treatment and behavioural and psychosocial correlates were underestimated.

Demographic data were recorded at intake in an interview situation and there is no reason to doubt the reliability of these, nor is there any reason to believe that clinicians did not accurately record which treatments were received by each case. This was routinely recorded on the item sheet in team meetings.

A further shortcoming of this study is the fact that the integrity of the treatment offered was not assessed. Where treatment integrity is not assessed there may be doubts about the quality with which treatment was delivered. The integrity of treatment programmes is typically established in treatment outcome studies through manualization of the treatment procedures and the assessment of
samples of treatment sessions using therapist behaviour rating scales to check that the therapist's behaviour conforms to the guidelines in the treatment manual. In this study, we can have confidence that the treatment received by cases was of a high quality since the Department is based in a major national teaching hospital and provides training for a variety of disciplines and treatment modalities including psychiatry, psychology, social work and family therapy. In addition it is a centre for innovative clinical projects (e.g. Byrne & McCarthy, 1988, In Press; Colgan, 1991; Kearney, Byrne & McCarthy, 1989; McCarthy & Byrne, 1988, In Press; ). Our confidence in the quality of treatment is also bolstered by the fact that case management plans were established by multidisciplinary teams and reviewed regularly within team meetings.

Three specific avenues for future research are suggested by the findings of this project. First, patterns of overt and covert antisocial behavioural problems in conduct disordered and mixed disordered cases require more detailed study. Second, the systematic investigation of patterns of family overinvolvement in emotional disorder cases is long overdue. Third, there is a need to investigate clinical decision making in planning multimodal treatment programmes for the three types of cases involved in this study, along, of course, with further controlled treatment outcome studies.

**SUMMARY**

This paper reports on a retrospective archival study. Forty-one conduct disorder cases, 20 cases with mixed disorders of conduct and emotions and 23 emotional disorder cases were compared on demographic, behavioural and contextual
variables. The pattern of treatment received by each group and their therapeutic outcomes were also compared. The three groups had similar demographic characteristics but distinctive psychosocial profiles. Conduct disordered cases showed a predominance of covert behaviour problems and came from anomalous family situations with inadequate parental control. They received family therapy and were more likely to drop out of treatment. Mixed disorder cases showed more behaviour problems overall and more overt behaviour problems. They came from families where there was inadequate parental control and anomalous family situations. They received more child focused individual therapy and parent focused therapy than other cases. Emotional disorder cases showed fewer behavioural problems overall and fewer overt behavioural problems in particular. These cases tended to be characterized by familial overinvolvement in the child's problems. They received family therapy and child focused therapy and showed greater improvement than cases from the other diagnostic groups.

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