Service use by looked after children with behavioural problems
Findings from the England survey

Panos Vostanis, Guv Bassi, Howard Meltzer, Tamsin Ford and Robert Goodman examine data from the England survey on the use of services by looked after children with behavioural problems (or conduct disorders – CD). Of the total 1,039 looked after children who participated, 384 (37%) fulfilled criteria for CD, of whom 57 (or 17% of children with CD) had an additional hyperkinetic and 46 (or 12% of the CD group) an additional emotional disorder. Children had high rates of multiple and overlapping contacts with social care, health, education and youth justice services. Children with additional emotional and hyperkinetic disorders had particularly high rates of contact with primary care, specialist child and adolescent mental health services (CAMHS), child health and special educational services. In conclusion, looked after children and young people with behavioural problems are likely to require access to a range of services, but these should be clearly defined and co-ordinated, with local care pathways and referral criteria, in order to maximise the use of resources. Although CAMHS involvement should not automatically be requested for all behavioural problems, looked after children with underlying mental health or developmental disorders would particularly benefit from specialist CAMHS input.

Introduction
The high rates of mental health problems and related needs among looked after children and young people are well established (McCann et al, 1996; Anderson et al, 2004a; Holtan et al, 2005; Richards et al, 2006; Ford et al, 2007b; Sawyer et al, 2007). Data from the Great Britain mental health surveys of looked after children showed that they had significantly higher rates of mental health disorders than children living in deprived private households, as well as the general population (Ford et al, 2007b). As found by previous research, these were particularly prominent among those living in residential care and who had experienced multiple placements. Even young children at the time of entering local authority care have been shown to have high rates of mental health problems (children aged 5–12 years in Dimigen et al, 1999).

Despite their high level of needs, there is emerging evidence of a range of difficulties with service access, engagement and cost-effective use of resources (Brand and Brinich, 1999; Hukkanen et al, 1999; Beck, 2006; Sawyer et al, 2007). These can be explained by several possible reasons, such as non-recognition or under-reporting of mental health problems, fear of stigma, barriers to generic child and adolescent mental health services (CAMHS) and lack of co-ordinated, targeted and effective interventions (Blower et al, 2004; Mount et al, 2004). A US study by Harman et al (2000) found that children in foster care were 7.5 times more likely to be hospitalised for a mental health condition than the general population. This could be explained by both higher level of need and inability to access community mental health services through established care pathways.

Although there is limited evidence on the patterns of service use by looked after children, partly because of their specific characteristics (high mobility, multiple carers and life adversities), there are interesting findings from studies with other groups of children with complex needs and multiple agencies involvement – in particular, children with longstanding and severe behavioural difficulties, falling within the remit of behaviours defined as ‘conduct disorders’ (CD). This concept can be perceived differently in relation to its nature and aetiology (Hsieh and Kirk, 2003); for example, is it a mental health condition? Is it different from other behavioural presentations? Is it a homogenous group? Does the use of the term pathologise certain behaviours?
Should these children primarily be seen by specialist CAMHS?

These questions and debates indicate the likelihood of service overlap, hence the interest in emerging evidence from service use research. For instance, an earlier study by the researchers, based on a child mental health survey of all children in the UK, found that children with conduct disorders had significantly higher lifetime rates of use of educational and social care services during their lifetime than did those with other disorders (Vostanis et al., 2003). The use of primary or specialist health care and of educational services was associated with concurrent (comorbid) physical and mental health disorders. In contrast, contact with social services was associated with family discord.

In a Canadian study of young people with severe behavioural problems, Shamsie et al. (1994) found that they had received an average of 19 interventions by 15 agencies. Such multiple and recurrent contacts with different agencies result in high costs across all public sectors (Scott et al., 2001; Clark et al., 2005).

As children with behavioural/conduct disorders are over-represented among looked after children (often overlapping or diagnosed instead of attachment difficulties/disorders – Howe and Fearnley, 2003; Kelly et al., 2003; Ford et al., 2007b), and persistent behavioural problems are negative predictors of placement and broader outcomes (Leathers, 2006), it is important to establish their patterns of service use and the factors associated with contacts with different agencies. This was the rationale for this study.

The study

This article presents the findings of a secondary analysis of data from the England survey for looked after children. The aim was to establish patterns of service use among looked after children with behavioural problems (conduct disorders) and to explore whether contacts with different agencies were associated with other types of concurrent disorders, namely emotional and hyperkinetic.

The methods of the survey are described in detail in Meltzer et al. (2003). In summary, 2,315 children looked after by 142 local authorities in England aged between five and 17 years old were selected from local authorities’ databases. A contact person was identified in each authority and consent was sought, prior to approaching the selected child’s social worker, to complete a summary form before initiating contact for the study. Of the 2,315 child summary forms sent, 1,796 (78%) were returned. Of those 1,796 returned forms, 757 (42%) were ineligible, the main reasons being carer refusal (26%), child going through adoption procedures (17%), local authority refused access (14%), carer felt the timing was inappropriate (13%) and summary forms were returned too late to arrange an interview (12%). Therefore, the sample of the study consisted of the remaining 1,039 children.

The diagnostic instrument used was the Development and Well-being Assessment (DAWBA – Goodman et al., 2000). This structured interview was administered by lay interviewers to the main carers and to young people, if aged 11 or over. Verbatim descriptions of any problem areas were also recorded. An abbreviated questionnaire version was completed by the child’s teacher. A small team of experienced clinicians used the information provided by all the informants, combining information as they would in the clinic, to make diagnoses according to international standardised (ICD-10) criteria (World Health Organisation, 2003; described in Ford et al., 2007b). The clinicians used the verbatim reports to check that respondents had understood what they had been asked, to assign ‘not otherwise specified’ diagnoses and to decide whose account to prioritise when there was disagreement between different informants. All clinical ratings were made by experienced child psychiatrists who had trained using the same manual under...
supervision by the lead researcher (RG). In addition, all diagnoses were reviewed by RG to ensure that the ‘caseness’ threshold was consistent across the sample, and also consistent with the threshold used in previous studies of children and adolescents living in private households.

No one category of informant was automatically prioritised: details in the transcripts that corroborated symptom reports were used to determine the weight given to each informant. The aim was to emulate the clinical process as closely as possible, because rigid rules for combining information from different informants can be problematic. The kappa statistic for chance-corrected agreement between two clinicians who independently rated 500 children was 0.86 (95% confidence interval 0.78–0.95). Children were only assigned a diagnosis if their symptoms were causing significant distress or social impairment. For each problem area, informants were asked if the difficulties caused the child distress or interfered with family life, peer relationships, leisure activities or learning. Each scored on a four-point scale: ‘not at all’, ‘a little’, ‘a medium amount’ and ‘a great deal’. The diagnostic threshold was set at ‘a medium amount’ of distress or impairment according to at least one informant. The main types of disorders are reported in this article, ie conduct, emotional and hyperkinetic disorders. Social workers and carers provided data on the child’s care history and contacts with services. These referred to the previous year, and in relation to concerns regarding behaviours, emotions and/or concentration.

The analysis of the data consisted of frequencies of categorical variables and descriptive statistics of the continuous variables. As breakdown into diagnostic subgroups and different types of service use reduced the statistical power by including small numbers in several variable cells, no further comparative statistical analysis was performed on the data, which, although indicative of patterns of service use among different diagnostic groups, need to be interpreted with caution.

Of the 1,039 looked after children who participated in the survey, 467 (45%) fulfilled ICD-10 criteria for any disorder, 384 (37%) for conduct disorder, 125 (12%) for emotional disorder (ED) and 73 (7%) for hyperkinetic disorder (HK), with many children receiving more than one diagnosis. The 384 children with conduct disorder constituted the sample of the study presented in this article.

Of these 384 children with conduct disorder, 266 did not have any other disorder (69.3% of all children with conduct disorder), 57 (14.8%) had a comorbid hyperkinetic disorder, 46 had a comorbid emotional disorder (12.0%), and 15 children (3.9%) had three concurrent disorders (conduct, hyperkinetic and emotional). The latter group was omitted from the analysis because of its small size.

**Results**

**Characteristics of children and young people**

As is consistent with the existing research literature, it was found that there was a higher proportion of boys with comorbid hyperkinetic disorders (82.5%), in contrast to comorbid emotional disorders (47.8%). Children with comorbid emotional disorders were over-represented within the residential care group (43.5%). Children with comorbid emotional disorders had the highest mean age and had entered care later than the other groups. The details are given in Table 1.

**Use of specialist services and informal supports by looked after children with significant mental health problems**

The children’s main contact in relation to mental health problems had been their social or link worker (overall 86.4%), followed by a teacher (overall 59.3%). Among those in contact with special educational services, the lowest frequency was reported by those with
CD only (28.8%). Health services were more likely to have been contacted if there was a comorbid hyperkinetic or emotional disorder, rather than just CD. This applied to general practitioners or practice nurses, specialist CAMHS, adult mental health and other child health services (the latter pattern only applied for emotional disorders). The overall contact with specialist CAMHS was 44.3 per cent, ranging between 38.1 per cent for the CD-only group, 49.3 per cent for the CD and emotional disorders group, and 61.6 per cent for the CD and hyperkinetic disorders group. Full details can be seen in Table 2.

### Special educational needs provision

Just under one-third of looked after children with CD (N = 111 or 29.1%) were attending a special school or other educational unit. The respective frequency for children with CD only was 26.8%, for children who also had a hyperkinetic disorder 35.7%, and for CD and emotional disorder 37.8%. The main reasons and types of provision are presented in Table 3. For the

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**Table 1**

Characteristics of looked after children with conduct disorders (N = 384)

<table>
<thead>
<tr>
<th>Demographics</th>
<th>Children with CD only (N = 266)</th>
<th>Children with conduct and hyperkinetic disorder (N = 57)</th>
<th>Children with conduct and emotional disorder (N = 46)</th>
<th>All looked after children with CD* (N = 384)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Mean (SD) 12.3 (3.3)</td>
<td>10.6 (3.0)</td>
<td>13.2 (2.9)</td>
<td>12.1 (3.3)</td>
</tr>
<tr>
<td>Gender</td>
<td>Male 163 (61.3%)</td>
<td>47 (82.5%)</td>
<td>22 (47.8%)</td>
<td>243 (63.3%)</td>
</tr>
<tr>
<td></td>
<td>Female 103 (38.7%)</td>
<td>10 (17.5%)</td>
<td>24 (52.2%)</td>
<td>141 (36.7%)</td>
</tr>
<tr>
<td>Ethnic status</td>
<td>White 235 (88.4%)</td>
<td>53 (93.0%)</td>
<td>41 (89.1%)</td>
<td>344 (92.1%)</td>
</tr>
<tr>
<td></td>
<td>Black 19 (7.1%)</td>
<td>2 (3.5%)</td>
<td>3 (6.5%)</td>
<td>24 (4.5%)</td>
</tr>
<tr>
<td></td>
<td>Other 12 (4.5%)</td>
<td>2 (3.5%)</td>
<td>2 (4.3%)</td>
<td>16 (4.3%)</td>
</tr>
<tr>
<td>Age of entry into care</td>
<td>Mean (SD) 7.5 (4.1)</td>
<td>6.4 (3.5)</td>
<td>8.1 (4.2)</td>
<td>7.4 (4.0)</td>
</tr>
<tr>
<td>Main types of placement</td>
<td>Foster care 167 (62.5%)</td>
<td>40 (70.2%)</td>
<td>1 (1.8%)</td>
<td>232 (60.3%)</td>
</tr>
<tr>
<td></td>
<td>Family or kinship care 17 (6.4%)</td>
<td>5 (8.8%)</td>
<td>6 (13.0%)</td>
<td>31 (8.1%)</td>
</tr>
<tr>
<td></td>
<td>Community home or other residential 70 (26.2%)</td>
<td>11 (19.3%)</td>
<td>20 (43.5%)</td>
<td>104 (27.0%)</td>
</tr>
<tr>
<td></td>
<td>Living independently 13 (4.9%)</td>
<td>1 (1.8%)</td>
<td>4 (8.7%)</td>
<td>18 (4.7%)</td>
</tr>
<tr>
<td>Number of placements during last year</td>
<td>Mean (SD) 1.5 (1.3)</td>
<td>1.2 (1.1)</td>
<td>1.9 (1.9)</td>
<td>1.5 (1.4)</td>
</tr>
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</table>

* Includes 15 children with CD+ED+HK
majority of children, their carers attributed the school provision to both behavioural/emotional and learning difficulties.

Contacts with social care and youth justice services
Most of children with any CD (overall 84.6%) had been visited at home in the previous year by a social care agency because of concerns about behaviour, emotions and attention/concentration, with similar rates between the CD subgroups. Reported rates of previous trouble with police and contacts with youth justice workers in the preceding year were higher among children with both CD and emotional disorders (37.2% and 26.7% respectively). The same applied to the average number of times they had been in trouble with the police in the same period (5.4), a figure that contrasted with 4.9 in the CD-only group, and 3.0 in the CD and hyperkinetic group. The results can be seen in Table 4.

Discussion
Despite the body of evidence on looked after children’s and young people’s complex needs, including those related to mental health (eg Ford et al, 2007b;
Sawyer et al., 2007), there has been relatively less systematic knowledge on their use of services. Some studies have found high levels of unmet needs and poor access to mental health services, as well as multiple contacts with social care and youth justice services (Hukkanen et al., 1999; Blower et al., 2004). The England survey of looked after children provided an opportunity to establish such service patterns, which will hopefully inform the planning, improved co-ordination and delivery of future services. In particular, we were interested in the patterns of service use by looked after children with behavioural problems, owing to their high prevalence (Meltzer et al., 2003), heterogeneity in their nature and presentation and multifactorial aetiology (Burke et al., 2002).

Indeed, looked after children with behavioural problems were reported to use multiple agencies and services. Young people with additional emotional problems were more likely to live in residential care than the other subgroups. In a previous study on looked after children in the UK that included this cohort, Ford et al. (2007b) looked at the opposite trend, and found that 61.3 per cent of all children/young people in residential units fulfilled criteria for conduct disorder, compared with 37 per cent of all looked after children. A substantial proportion of children were possibly placed at these units because of older age and difficulties in meeting their needs through combined foster placements and community interventions. The findings suggest a need for improving services and combined interventions for young people with complex mental health problems (Nicholas et al., 2003). Kelly et al. (2003) described an interesting model of a residential care setting with integrated educational and mental health service provision.

The findings also have implications for staff training, joint working with CAMHS and joint commissioning between social care, health and education. These should hopefully prevent the next potential and unfortunate ‘step’ in these children’s placements, namely moving to costly out-of-county residential units of variable quality. Clark et al. (2005) established the characteristics of children placed in such units, which included concerns on high risk (82%), conduct (53%) or oppositional disorder (further 12%) and high comorbidity (53%). Other studies have estimated high costs across agencies for antisocial behaviour and social exclusion in childhood, adolescence and adult life (Scott et al., 2001; Romeo et al., 2006).

Of all looked after children with conduct disorders, just under half (44.3%) had been in contact with CAMHS in the previous year. Contact with specialist CAMHS was higher if

<table>
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<th>All looked after children with CD (N = 384)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visited at home by social care agency in last year because of mental health concerns</td>
<td>82.3%</td>
<td>91.1%</td>
<td>87.0%</td>
<td>84.6%</td>
</tr>
<tr>
<td>Child has been seen by youth justice/probation worker in the last year</td>
<td>17.7%</td>
<td>5.4%</td>
<td>26.7%</td>
<td>16.8%</td>
</tr>
<tr>
<td>*missing data (N = 14)</td>
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<tr>
<td>Child has been in trouble with the police</td>
<td>30.7%</td>
<td>17.6%</td>
<td>37.2%</td>
<td>29.3%</td>
</tr>
<tr>
<td>*missing data (N = 36)</td>
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Table 4
Contacts with social care and youth justice services (N = 384)
children also had an emotional (49.3%) or hyperkinetic disorder (61.6%). A similar pattern, albeit of lower contact rates, applied not only to other health services (primary care, other child health and adult mental health), but also to specialist educational services. This is consistent with Ford et al’s (2007a) findings in the general population. Although there was overlap in the use of specialist services by children and their families, use of specialist mental health services was found to be associated with hyperkinetic and other comorbid disorders, rather than conduct disorders per se, which were predominantly associated with social services use.

The implication from both studies is that children with emotional disorders, ADHD and developmental disorders, such as autism spectrum or Asperger’s Syndrome, will often need to be in contact with mental health services for assessment and treatment, but that this will not necessarily apply to children with behavioural problems without mental disorders, as assessment by specialist CAMHS may be unrealistic owing to resource constraints. The difficulty is in making sure that comorbidity is not overlooked because people concentrate on the behaviour and allow this to overshadow all other diagnoses (Anderson et al, 2004b). The effective use of specialist resources requires locally agreed care pathways and operational criteria, complemented by close links, training and consultation from specialist CAMHS teams to agencies working with looked after children, in order to make informed decisions on which children should benefit from referral to specialist CAMHS. An alternative would be to put in place agreed mechanisms with social services and education to ensure coordinated screening. For example, if an instrument such as the SDQ (or the DAWBA) points to pure behavioural difficulties, a stepped behavioural approach could be tried first, with referral to CAMHS if that fails. Screening, ie a rating or checklist according to pre-set criteria (first stage), should be differentiated from a more complex and time-consuming assessment (second stage) that incorporates contact with the child, carers and often other agencies involved. Both stages would substantially improve if set up collaboratively by the key agencies (social care, education and CAMHS). In that respect, screening could include multiple, corroborated and jointly agreed criteria; while assessment could involve liaison meetings between professionals and joint interviews with the child and carers where most appropriate.

Carers reported limited contacts by the children with self-help groups or advice phone lines (the latter were higher for children with emotional problems). These emerging important sources of support can be initially difficult to access for many young people, even those living in stable situations. Particular efforts and guidance should be provided to those who are looked after, so that they become aware and feel comfortable in approaching and using them. There is promising evidence on the role of mentoring schemes for antisocial behaviour in childhood (Roberts et al, 2004), and these could have additional value for looked after children.

A third of children with behavioural problems were attending a special school or unit, with higher rates for those with additional hyperkinetic and emotional disorders. Reasons for their school placement were attributed to both behavioural/emotional and learning problems. There were also high rates of contact with the police and the youth justice system, again higher for children with additional emotional problems, as found by previous research (Nicol et al, 2000). These indicate the need for coordinated provision between different agencies, as these children and young people are likely to come into contact with most of them at different times.

Debate on the nature, presentation, social context and interventions for behavioural problems (or oppositional/conduct disorders), particularly on which agency is predominantly respon-
sible (Goodman, 1997; Hsieh and Kirk, 2003), is likely to lead to agency friction unless clear protocols are in place. The lack of a single accountable agency may explain the poor co-ordination, duplication and redundancy that commonly arise between agencies supporting children with mental health problems (Glied and Cuellar, 2003). As the only agency that has child mental health as the main function, CAMHS could arguably take the lead in the co-ordination and organisation of services for children with mental disorders, with services for the remaining children with behavioural presentations being co-ordinated by social care agencies. However, co-ordination of services should not detract from the quality of the service offered, as organisational climate may be just as important (Glisson and Hemmelgarn, 1998).

Many behaviours of looked after children, who have often suffered neglect, abuse and multiple rejections, are often understood and treated in the context of attachment difficulties (or disorders) (Minnis and Del Priore, 2001). An important practice implication is that externalising behaviours can ‘mask’ emotional or developmental disorders (Maughan et al., 2004; Sayal et al., 2006). The latter (hyperkinetic or autism spectrum disorders) pose an additional complexity in often resembling manifestations of attachment difficulties, thus requiring careful mental health assessment. Mixed presentations of conduct and depressive disorders have been found to increase the risk of serious outcomes, such as substance misuse and suicide (Loeber et al., 2000). It is therefore essential that these are recognised early in looked after children’s placements, particularly as carers have been found to miss or under-report emotional problems (Beck, 2006).

The analysis of these data poses a number of limitations. Carers may not have known the children long enough to give reliable information on contacts with services and the underlying reasons that precipitated these contacts. The sample size did not enable the statistical comparison of service use between the diagnostic subgroups. Over a third of the original random sample was deemed ineligible, meaning that despite a high response rate, respondents may not be representative of children looked after by local authorities. Children being adopted or returned to their parents might be expected to have a lower prevalence of mental health problems, while local authority or carer refusal to grant access may be an indicator of poor mental health, making it difficult to estimate how our findings might be influenced by our difficulty in accessing some groups of looked after children. Despite these limitations, our study is one of the largest and most systematic studies of children looked after by local authorities carried out to date.

Better understanding of children’s service experiences remains an important area for future research. As looked after children and carers frequently express concerns about stigma, other barriers to mental health services and limited involvement in care planning (Callaghan et al., 2003, 2004), the accessibility and engaging capacity of new services should be rigorously evaluated.

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