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Primary Mental Health Workers within Youth Offending Teams: a new service model

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Abstract

Primary Mental Health Workers (PMHWs) have been deployed to address the mental health needs of young offenders referred to Youth Offending Teams (YOTs) in two UK areas. The mental health characteristics of 60 young people consecutively referred to these PMHWs, the assessment outcome and interventions offered, are described. In addition to the anticipated concerns about oppositional/aggressive behaviour, young people were referred for a range of mental health problems. There were high levels of emotional problems, self-harm, peer and family relationships difficulties, and school non-attendance. PMHWs offered a range of direct interventions, as well as consultation to YOT staff. The service findings indicate the usefulness of such an inter-agency model in strengthening the links between specialist CAMHS and YOTs, and providing an accessible, responsive and effective service to a needy group of young people.

1. Introduction

1.1. What are Youth Offending Teams (YOTs)?

According to the Home Office (2000), a significant proportion of offences are committed by under 18-year-olds. This represents approximately one quarter of the estimated seven million incidents that occur each year. For this reason, the reduction of youth crime was seen as crucial

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part of the government's Crime Reduction Strategy. Youth Offending Teams (YOT) were established under the Crime and Disorder Act 1998, and were fully implemented in April 2000 (Youth Justice Board, 1998). These are inter-agency teams, intended to provide an integrated response to young offenders and thus reduce re-offending rates. Service objectives are to help young people face up to the consequences of their actions, for themselves, their victims and their communities, to tackle issues that might contribute to the initiation or maintenance of offending, and to facilitate the swift and effective delivery of youth justice services (Home Office, 1999). As mental health problems and disorders have a well-established role in initiating and maintaining young people's offending, this is one issue that YOTs across the UK have been specifically designed to address.

1.2. Mental health needs of young offenders

A number of studies have looked at the mental health needs of young offenders, particularly in secure units and other institutions, and established high rates of mental health problems and disorders, educational and social needs (for example, Bullock, Hosie, Little, & Millham, 1990; Reiss, Grubin, & Meux, 1996; Lengua, Handy, & Dhariwal, 1997; Nicol et al., 2000). Most research findings arise from secure settings or from populations of serious offenders. Some evidence from community studies with young offenders suggests fairly extensive levels of unmet needs. For example, Gunn, Maden, and Swinton (1991) found that a diagnosis of psychiatric disorder was appropriate in about one third of young men aged 16–18 years, who had been sentenced by the courts.

In addition to oppositional/conduct disorders, high rates of comorbidity have been established with substance misuse, depressive, post traumatic stress, and attention deficit-hyperactivity disorders (Bailey, Thornton, & Weaver, 1994; Cauffman, Felman, Waterman, & Steiner, 1998; Nicol, 1999; Carrion & Steiner, 2000; Ireland, 2000a; Papageorgiou & Vostanis, 2000; Pliszka, Sherman, Barrow, & Irick, 2000). The underlying lifestyle and associated factors places these young people at risk of several physical health problems, such as sexually transmitted diseases, lower body mass index, accidents, or early pregnancy among females (Bardone et al., 1998).

A range of psychosocial factors are associated with offending and predisposition to mental health problems among young offenders, such as parental criminality or drug and alcohol abuse, early onset conduct problems, family conflict or breakdown, harsh or inconsistent parenting practice, socio-economic disadvantage and exposure to traumatic events such as abuse, neglect or abandonment (Fergusson, Horwood, & Lynskey, 1994; Farrington, 1995, 1996; Smith & Thornbury, 1995; Haapasalo & Hamalainen, 1996). These can be compounded by the impact of moving through the criminal justice system (Paulus & McCaine, 1983; Zambe & Porporino, 1998). Related stressors may include arrest and exposure to the court system, the effects of incarceration or being bullied while in custody (Ireland, 2000b; Dimond, Misch, & Goldberg, 2001), and these stressors appear to predict later anxiety and depression (Nieland, McCluskie, & Tait, 2001). Vice versa, ongoing mental health problems have been identified as risk factors for re-offending (Rutter, Giller, & Hagell, 1998) and further social exclusion (Bailey, 1999). Therefore, any attempt to reduce offending rates and increase inclusion must adequately deal with the young people's mental health needs.

1.3. Mental health service provision and service utilization

The Audit Commission (2000) identified young offenders with mental health problems as a particularly vulnerable group, who fall between the boundaries of different agencies, and are in need of early intervention. Kurtz, Thornes, and Bailey (1997, 1998) survey of service providers' perceptions of young offenders' mental health needs and the services provided for them, concluded that "their mental health needs are neither well recognized, widely understood, nor adequately met". (1998, p. 544) These issues do not only apply to mental health services, but also to general health services (Bullock & Little, 1999; American Academy of Pediatrics, Committee of Adolescence, 2001). In a study of general health needs of young people presenting at Manchester Youth Court, Dolan, Holloway, Bailey, and Smith (1999) found that many young offenders could not access primary health care services, and were more likely to present to specialist (hospital) services only when they had reached a point of crisis.

Mental health service provision for young offenders in the community has been patchy, and subject to regional variation (Kataoka et al., 2001). Hagell and Newburn (1996) found that, although half their sample of persistent young offenders had had some counselling or psychological intervention, there was great variation in the type and amount of help that they received. Kurtz, Thornes, and Bailey (1998) established that many agencies reported difficulties in accessing specialist Child and Adolescent Mental Health Services (CAMHS) for young offenders, most of which related to referral criteria (often not including those over 16 years or not in education, or certain types of behavioural presentations), but difficulties also included response times, limited resources, or lack of expertise in dealing with dangerous behaviours.

Another difficulty in establishing inter-agency services is related to the detection of young people's mental health problems by staff within the Youth Justice system (Teplin, 1990; Corrado, Cohen, Hart, & Roesch, 2000). Externalizing (disruptive) behaviours are easier to recognize and refer than internalizing (emotional) problems (Wolpert & Fredman, 1996). This indicates a need for training and consultation amongst frontline staff to improve detection rates for young offenders with mental health difficulties (Nicol et al., 2000).

For these reasons, it is crucial that mental health services for young offenders are tailored to the specific needs of this population. Bailey (1999) stresses the importance of an integrated inter- and intra-agency approach to mental well-being for young offenders, recognizing the high mobility of the population, and its implications for planning and continuity of care. Therefore, the links between CAMHS and agencies within the Youth Justice system, particularly the newly established YOTs, appear crucial for the development of effective assessment and intervention for young offenders. In that respect, there are similarities with the interface between specialist CAMHS and primary care services. The emerging service pattern in the UK is to bridge the gap through the deployment of Primary Mental Health Workers (PMHWs).

1.4. The Primary Mental Health Worker

Recognizing the strain under which CAMHS were operating, the Health Advisory Service (HAS) (1995) recommended the restructuring of the management, commissioning and provision of mental health services for children and young people. They proposed a four-tier mental health service, and suggested the development of the role of Primary Mental Health

Worker (PMHW—tier 2), to work at the interface between primary care professionals (tier 1) and specialist (tier 3) CAMHS (with tier 4 consisting of in-patient or other very specialized settings) (see Fig. 1). These recommendations found considerable support from the 1997 House of

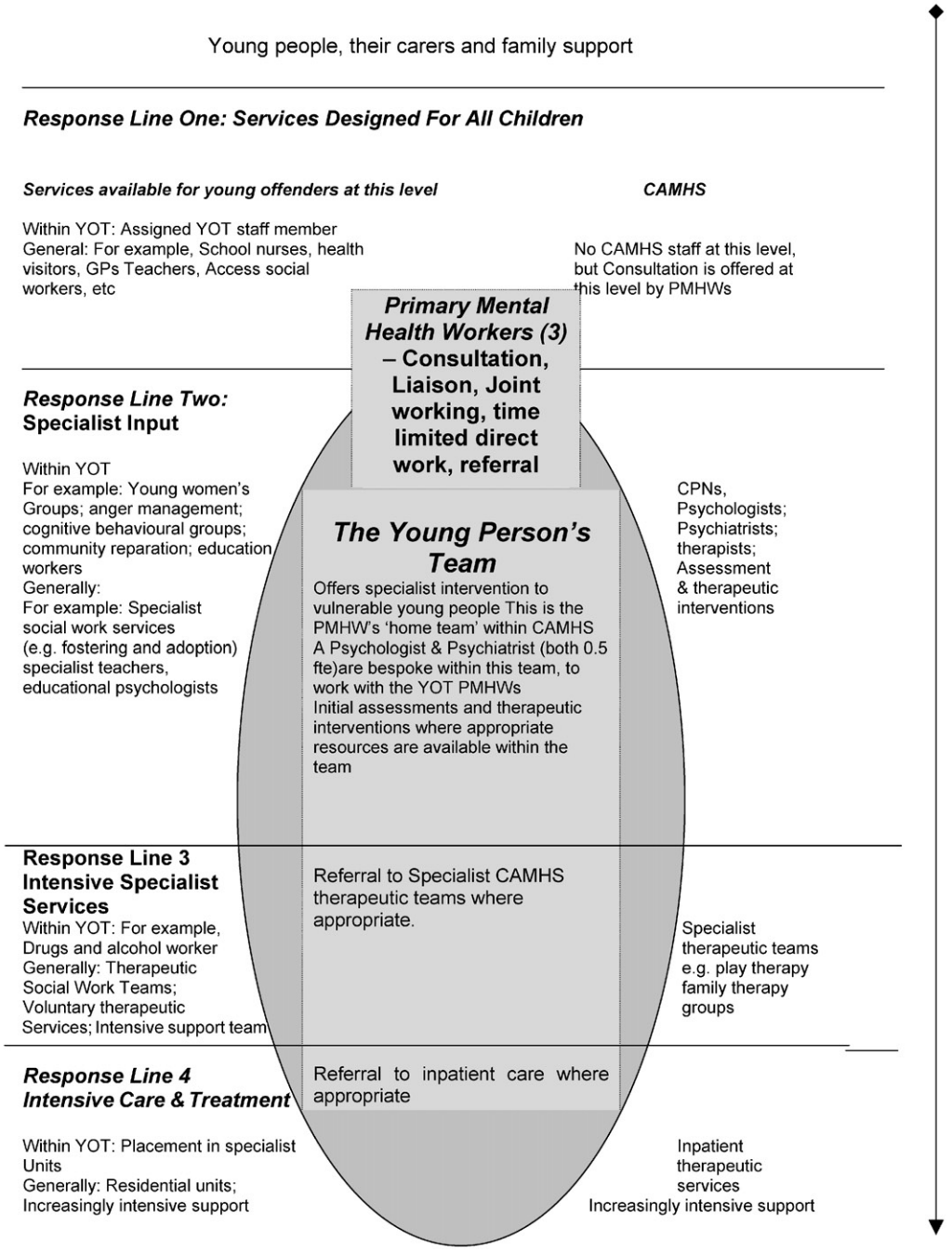

Fig. 1. Role of the PMHW in YOTs in the context of CAMHS and other services.

Commons Health Committee Report (Department of Health, 1997), the Mental Health Foundation (1999), and the Audit Commission (1999), who all emphasized the need to redress inadequate CAMHS provision in the past, and to develop better inter-agency collaboration in the provision of these services through appropriate liaison posts operating between primary care and specialist mental health services. The role of the PMHW works particularly well within the structure of YOTs, as it parallels the way in which the Youth Justice Board suggests that each specialist within the team (for example, police, education worker, social worker) liase between the YOT and the service from which they were originally seconded. Within Leicester, Leicestershire and Rutland, the posts of PMHW are joint funded by the Youth Justice Board (with this funding being reduced annually, to eventually leave funding entirely in the hands of the local authority) and the local health authority, and together with the Drug and Alcohol Worker form the Health input into the local YOTS.

These policy documents have been followed by the development and expansion of PMHW posts within CAMHS. Their service objectives include: consolidating primary care professionals' mental health skills and helping them develop new skills; working in partnership with primary care professionals (co-working) to assess young people's and families' needs; providing education and training to primary care professionals; aiding early recognition of mental health disorders in young people, and ensuring that they receive services appropriate to their needs; and providing preventative assessment and treatment with children and their families (Arcelus, Gale, & Vostanis, 2001; Gale & Vostanis, in press).

1.5. The new role of the Primary Mental Health Worker within Youth Offending Teams

Leicester, Leicestershire and Rutland has a general population of 900,000, living in multi-ethnic inner-city, semi-urban and rural areas. One quarter of the population, i.e. about 225,000 individuals, are under 18 years. A Joint Child and Adolescent Mental Health Strategy involves partnership between one Health Authority, three Local Authorities and the voluntary sector. There are two YOTs, one for the city with approximately 2000 annual referrals, and one for the county (semi-urban and rural) with 1000 annual referrals.

Taking into account the difficulties in accessing specialist CAMHS and the need for inter-agency work, three PMHWs (two in the city and one in the county) were appointed to provide responsive and accessible mental health service for young people who have offended. Their roles include a combination of consultation and joint work with YOT officers, and direct clinical work with appropriate young people. The PMHWs are located within the YOTs, but are also part of a specialist CAMHS team, established to meet the mental health needs of vulnerable young people (looked after by Local Authorities, homeless and offenders). By locating the PMHWs physically in the YOT teams, they are easily accessible to the YOT officers who constitute the largest portion of their tier 1 target group, and are also accessible to the young people who use the YOTs. At the same time, they ensure appropriate liaison between YOT staff and specialist (tier 3) CAMHS.

YOT officers routinely complete an ASSET form for each young offender they work with. In the course of completing this initial assessment, they may become aware of issues that they would regard as indicating some kind of mental health need (PMHWs within CAMHS have conducted basic training in mental health awareness to assist them in identifying this need, see Sebuliba & Vostanis, 2000). The YOT officer completes a referral form, developed by the PMHWs and the

researcher for use in the YOT setting, and this is used as the basis for a consultation with the PMHW. On the basis of this consultation, the YOT officer and the PMHW together decide whether the young person's needs are best met by direct intervention, or by consultation or joint working by the PMHW and the YOT officer.

2. The study

The aims of this study were, to describe:

(a) the direct clinical work conducted by PMHWs in YOTs, though data on referral characteristics, assessment and intervention; and
(b) the PMHW consultation role, through referral and YOT staff satisfaction data.

A sample of 60 consecutive cases was selected, i.e. those referred to PMHWs during the initial 6-month phase of being in post. Not all PMHWs came to post at the same time, so the number of referrals in the initial phase of the service is not representative of the subsequent phase. Of these 60 referrals, 40 were considered appropriate for direct clinical work, which was defined as any work involving direct contact between the PMHW and young people and their families, and 20 for formal consultation with YOT staff. In addition to these, PMHWs conducted a large number of less formal discussions with YOT staff about the young people in their care.

A service checklist and the *Health of the Nation Outcome Scales for Children and Adolescents* (HoNOSCA—Gowers et al., 1999a) were completed for all young people assessed by the PMHWs, and satisfaction questionnaires were completed by YOT staff in receipt of consultation (described below).

2.1. Young offenders referred for clinicall/direct work

Of the 40 young people seen for direct work, 33 were male and 7 female. Their age ranged from 12 to 18 years, with a mean age of 15.5 years. The majority of the young people seen identified themselves as white British ($N = 31$), while three identified themselves as African/Caribbean, one as Asian, and five as dual heritage (African/white British).

Their precipitating offences, were: violence (9), sex offence (2), burglary (8), theft (16), fraud/forgery (2), motor offence (18), criminal damage (7), drug-related offence (7), and other offences (4). More than one offence was recorded in several cases. Twenty-four were classified as persistent offenders, i.e. had committed three or more offences in the past 12 months.

2.1.1. Presenting problems—reasons for referral

Young people were seen by PMHWs between one and 32 days after the referral, with an average of 10 days, and a median of 14 days. PMHWs saw young people with a variety of presenting problems for direct work (Table 1). As expected, the majority were for overt, externalizing behaviours, but there were also a range of other concerns about mental health difficulties.

Table 1
Presenting problems—young people seen for direct work ($N = 40$): this table shows the frequency of the main presenting problem(s) for which the YOT officer referred the young person

Oppositional/aggressive behaviour	15
Very violent behaviour	2
Sexualized behaviour	2
Self-harm	13
Depression	6
Paranoid/bizarre thoughts	3
Assessment for ADHD	2
Eating disorder	1
Obsessive compulsive disorder	1
Phobic disorder	2
Asperger's syndrome	1
Alcohol/substance misuse	5
Assessment of learning difficulties	2
Family problems	3
Impact of past sexual abuse	1
Concerns about possible epilepsy	2
Identity issues	3
Self-esteem	1

All presenting problems are indicated here, i.e. there may be more than one per young person.

2.1.2. Assessment based on the Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA)

The HoNOSCA includes 13 clinical/psychosocial scales (Section A: disruptive/aggressive behaviour, overactivity and attentional difficulty, non-accidental self-injury, alcohol or substance/solvent misuse, scholastic or language skills, physical illness/disability problems, hallucinations and delusions, non-organic somatic symptoms, emotional and related symptoms, peer relationships, self-care and relationships, poor school attendance) and two items on information about services (lack of knowledge-nature of difficulties, and lack of information on services/management).

Each item is rated on a five-point severity scale, between 0 (no problem), 1 (minor problem requiring no action), 2 (mild problem but definitely present), 3 (moderately severe problem, and 4 (severe to very severe problem), with a detailed glossary for each point of the scale and item (Gowers et al., 1999b). Total scores were estimated for each item. Inter-rater reliability has been established as 0.8 (Garralda, Yates, & Higginson, 2000), and validity has been established against the Global Assessment Scale.

All cases were independently rated by a researcher (JC), who had previously completed the video and manualized training for the HoNOSCA. Data derived from the HoNOSCAs, which were completed with PMHWs, are summarized in Table 2. Although there are no norms on the scales scores, a score of 2 or above on each scale (which represents a rating of at least 'mild' presentation) was considered of potential clinical significance.

As might be expected for a sample of young offenders, 39 out of 40 received clinically significant scores on scale 1 (aggressive, antisocial and disruptive behaviour), with the majority of scores being in the moderate to severe category. However, there were also fairly high scores on other

Table 2
Young people's HoNOSCA scores at first assessment: summarizing the frequency of each severity rating for the subscales of the HoNOSCA

	None	Slight (1)	Mild (2)	Moderate (3)	Severe (4)	Missing data
Scale 1: Aggressive, antisocial and disruptive behaviour	0	1	9	14	16	0
Scale 2: Overactivity and attention deficit	20	8	8	4	0	0
Scale 3: Non accidental self-injury	21	3	10	5	1	0
Scale 4: Alcohol, solvent and substance misuse	13	7	7	9	4	0
Scale 5: Scholastic or language skills problems	20	4	8	5	1	2
Scale 6: Physical illness or disability	33	5	2	0	0	0
Scale 7: Hallucinations, delusions and abnormal perceptions	30	3	3	4	0	0
Scale 8: Non-organic somatic symptoms	27	5	6	2	0	0
Scale 9: Emotional and related symptoms	5	6	13	9	7	0
Scale 10: Peer relationships	13	9	9	5	4	0
Scale 11: School attendance	13	2	1	7	17	0
Scale 12: Problems with family life and relationships	4	0	10	19	7	0
Scale 13: Carer's knowledge and understanding of the young person's difficulties	15	6	10	6	2	1
Scale 14: Carer's lack of information about services and management for the young person's difficulties	22	7	5	5	0	1

clinical scales, with 16 young people engaging in clinically significant self-harming behaviour, seven reporting symptoms such as hallucinations, delusions and abnormal perceptions, eight reporting clinically significant non-organic somatic symptoms, and 29 presenting with significant emotional and related problems.

Of the 40 young people in the sample, 34 (or 85.0%) had clinically significant scores on at least one of these 'mental health' scales, with 33 of these 34 with scores of 2 or above on *both* scale 1 (disruptive, aggressive and antisocial behaviour) and one of the other mental health scales, which indicates a high comorbidity rate. It should also be noted that 12 of the 40 young people (or 30.0%) received a 'severe' rating on these scales, with seven of these severe ratings being on the emotional scale, and four on the alcohol and substance abuse scale. Of the 12 young people with a severe rating, 10 (83.3%) were either referred to a more appropriate service, or were being seen in conjunction with a staff member from the general CAMHS team.

Interestingly, the majority of young people in the sample were rated as having significant difficulties in family life and relationships, with more than half of the young people ($N = 26$, or

65%) experiencing moderate to severe difficulties. In further 18 cases (45.0%), a lack of understanding of the young person's difficulties on the part of the young person's parent was judged to have a significant impact on those difficulties. Also, in 10 cases (25.0%), carers did not have adequate access to information about services and management for the young person.

A large proportion of the sample scored significantly on scales 10 (peer relationships) and 11 (school attendance), which could both be seen as indicators of social exclusion among young offenders. Ratings of attention difficulties and overactivity, physical illnesses and self-care were not notably high.

2.1.3. Assessment outcome (Table 3)

The outcome of the PMHW assessment consisted of both YOT-specific recommendations and therapeutic interventions. The former predominantly included risk assessment and recommendations, assessment for the courts, and supervision of court orders. There were also a range of therapeutic interventions provided directly by the PMHWs, one of whom had a psychiatric nursing background and two a social work background. These interventions did not differ from those provided by other community CAMHS staff, and included cognitive-behavioural therapy, counselling/brief psychodynamic psychotherapy and family therapy. The need for joint work and liaison with the specialist CAMHS staff, mainly psychologists and psychiatrists, was highlighted by the 14 cases where such work was considered the most appropriate strategy for the young person concerned.

2.2. Consultation to youth offending teams staff

Of the 20 young people seen for consultation, 16 were male and 4 female, with a mean age of 15 years and 5 months (range 12–18). Their ethnic status was, white British (16), white Irish (1),

Table 3
Assessment outcomes and types of direct work ($N = 40$): This table summarizes the types of intervention PMHW provided to young people referred for direct work or assessment

Assessment to ascertain most appropriate intervention/risk assessment	12
Family therapy	8
Counselling/individual brief psychotherapy	9
Cognitive-behavioural therapy	5
Anger management	5
Alcohol/drugs counselling	3
Self-awareness/self-esteem work	1
Assessment for the courts	7
Supervision of an order	1
Initialization of child in need/CPA proceedings	2
Liaison or joint work with specialist CAMHS (as part of direct work)	17
Referral to tier 3 (specialist) CAMHS	4
Referral to tier 4 (in-patient) CAMHS	1
Referral to adult mental health services	1
Referral to Child and Family Social Work Team/FSU	2
Referral to voluntary agency	1

In some cases, there was more than one assessment outcome.

Table 4
Presenting problems for young people considered appropriate for consultation only ($N = 20$)

Oppositional/aggressive behaviour	4
Self-harm	1
Depressed mood	2
Anxious presentation	2
Phobic disorder	1
Paranoid ideas	3
Concerns related to past history of sexual abuse	2
Promiscuity	1
Inappropriate sexualized behaviour	1
Extreme nature of the offence	2
Assistance in anger management	1
Assistance in supporting remand foster carer	1
Assistance in completion of court report	2
Advice on working with young person with existing diagnosed mental health (e.g. phobia) or associated condition (e.g. epilepsy), and liaison with CAMHS staff involved	5

More than one presenting problem were described in some cases.

African/Caribbean (1), and dual heritage (African/white British) (2). Five young people were defined as persistent offenders. Their precipitating offences were: violence (8), sexual offence (1), burglary (3), theft (8), fraud/forgery (1), motor offence (6), and criminal damage (9)—more than one offence were committed by several young people. Table 4 shows the presenting problems of young people who were considered appropriate for consultation only.

The reasons for consultation varied. In five out of 20 referrals (or 25.0%), consultation and liaison were requested where another CAMHS practitioner was already involved in the case, to prevent replication of services. There were four specific requests for assistance in management or court reports, while the remaining referrals were related to difficult behaviours and mental health problems.

In addition to service records, a service satisfaction questionnaire was completed by the case-holding YOT staff member (consultee). This was developed by the research team, and consisted of 11 statements about the consultation, which YOT staff completed using a five-point Likert Scale, with responses ranging from 'strongly disagree' (1) to 'strongly agree' (5). Regarding consultation with PMHWs, responses indicated that YOT staff were satisfied with the accessibility, availability and offer of support provided by the PMHW. On the other hand, responses indicated that there was less clarity or satisfaction on the consultees' implementation of the strategies suggested, their own ability in applying the strategies, and the success of the interventions (Table 5).

3. Discussion

It is well established that young offenders have extensive mental health needs, which are largely unmet by traditional services. As indicated above, this is often related to difficulties in accessing services, nature of referral and operational criteria, limited or no designated resources, and lack of

Table 5
YOT staff's perceptions of the consultation process, derived from service satisfaction questionnaires ($N = 20$)

	Sa	A	U	D	Sd
PMHW was accessible	17	3	0	0	0
PMHW listened carefully to my concerns	18	2	0	0	0
PMHW helped me consider a range of options for intervention	11	6	1	2	0
PMHW's suggestions were clearly expressed	13	6	1	0	0
PMHW and I worked out strategies to implement an appropriate intervention with the young person	9	9	1	1	0
Suggestions were practical and implementable	8	8	2	2	0
Following the consultation, I implemented the suggestion	9	7	4	0	0
The intervention was successful	6	5	7	1	1
PMHW was available for follow-up consultation if needed	17	2	0	1	0
I have acquired new mental health skills in this consultation	6	10	2	2	0
I would be able to apply these skills with other young people	6	7	5	2	0

SA: strongly agree; A: agree; U: uncertain; D: disagree; SD: strongly disagree.

skills or understanding the particular needs of young people moving through the Youth Justice System. These issues do not only apply to mental health services, but may be relevant to other agencies working with young offenders, such as education and general health services.

The development of inter-agency YOTs has tried to address such service gaps, at an earlier stage and for a broader range of offending behaviours than was previously possible. However, there is no consensus as yet on how CAMHS should interface with the YOTs, or on the nature of service model they should apply. Adopting the four-tier CAMHS model, PMHWs were deployed as active clinical links between YOTs (tier 1) and specialist CAMHS (tier 3). The findings of this study address some of the issues raised at the early phase of such a service model.

The appropriate identification of referrals to PMHWs is crucial for the effective use of specialist skills and resources. Overall, although there was an inevitably large proportion of concerns related to aggressive behaviour and offences, we found a wide range of presenting mental health difficulties that would justify referral to CAMHS, namely concerns indicating possible depressive, eating, anxiety, psychotic, ADHD or pervasive developmental disorders. Behavioural problems were not excluded per se, but were considered in the mental health context of each case. In other words, if they were the sole presentation, they could be managed by the case-worker, following consultation with the PMHW. In other cases, which were comorbid with the previously described mental health problems, assessment and possible direct intervention by CAMHS were indicated. There were also several non-specific concerns about identity or self-esteem issues, epilepsy or sexual abuse, where a different referral route might have been be more appropriate.

This study was not designed to establish the exact nature of psychiatric disorders, but was based on service records and a clinical instrument (HoNOSCA). We found evidence suggestive of high levels of emotional disorders, self-harm, peer and family relationships difficulties, and school non-attendance. These are consistent with previous studies on the psychiatric comorbidity of disorders among young offenders (Bailey et al., 1994), and of the multiple and complex needs of this group (e.g. Hoge & Andrews, 1996; Nicol et al., 2000).

It also raises the issues of mental health screening and of YOT staff training to increase the detection of appropriate cases (Curtis, 2001; Roberts, Baker, Merrington, & Jones, 2001). Many of the referrals were for more overt mental health concerns, predominantly behavioural problems (anger/aggression), while internalizing mental health problems such as depression or anxiety conditions, were underrepresented in the referral presentations. This suggests the importance of further mental health training (Sebuliba & Vostanis, 2000), as well as the provision of clear operational and referral criteria.

PMHWs offered a range of interventions, applying different treatment modalities, including cognitive-behavioural therapy, supportive psychotherapy and family therapy. They also contributed to overall management by the YOTs by carrying out risk assessments and producing court reports. There was considerable interaction and joint working with specialist CAMHS and other agencies, suggesting the new service model was effective in promoting partnership between the different sectors.

Consultation is a very important component of the PMHW role, to support the management of appropriate cases at tier 1 level (Lacey, 1999; Gale & Vostanis, in press). Nine cases involved a request from YOT staff for PMHW assistance and advice within the existing management plan (Table 4). According to the data on the presenting problems, the remaining cases could not be differentiated from those referred for direct work (Table 1). However, many isolated mental health symptoms and presentations can be clarified through consultation, with suggestions on how to monitor and approach these concerns, before requesting a specialist mental health assessment. This is not always easily acceptable to tier 1 staff, who may feel as inadequately trained in managing mental health problems, or that this should be the responsibility of mental health specialists. Such YOT staff perceptions were highlighted in the satisfaction questionnaire, and these are an additional strong indication of the need for staff training, and for joint planning at management and policy level.

The service was set up to provide direct access to young people, without the need to see their General Practitioner in order to be referred to CAMHS. This accessibility was supported by the service data. Responsiveness, as indicated by the average period of 10–14 days from referral to first PMHW assessment, was also satisfactory. Involvement of the specialist CAMHS now depends on the nature of the mental health problems, including emergency psychiatric assessments independently or jointly with the PMHW. Even when psychiatric involvement is necessary, the joint work with the YOT should continue, in order to address other needs in the young person's life, such as educational problems, and difficulties with peer and family relationships (Henggeler, Cunningham, Pickrel, Schoenwald, & Brondino, 1996). Researchers noted with some concern the low levels of referral for ethnic minority groups, which may represent some difficulties with access for members of these groups. This issue may reflect a concern raised by YOT staff in focus group discussions, who suggested that the therapeutic model employed by many mental health workers is not always appropriate to marginalized groups (Callaghan, Young, Pace, & Vostanis, 2002).This issue warrants further investigation.

As our study was completed during the first phase of the PMHW input, it clearly has a number of methodological limitations. For example, we were unable to include interviews with young people or assess re-offending over a long period. As the YOTs evolve and their links with CAMHS develop further, future service evaluation would benefit from including interviews with the young people, and more comprehensive outcome measures, including re-offending

behaviours. However, these preliminary findings from a new service model are encouraging. They indicate satisfactory partnership between YOTs and CAMHS, with PMHWs providing a key bridging role through their consultative and clinical work, thus ensuring that young people access the services most appropriate for their needs, and that unnecessary duplication of work is avoided.

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References

American Academy of Pediatrics, Committee of Adolescence (2001). Health care for children and adolescents in the juvenile correctional care system. *Pediatrics*, *107*, 799–803.

Arcelus, J., Gale, F., & Vostanis, P. (2001). Characteristics of children and parents attending a British Primary Mental Health Service. *European Child and Adolescent Psychiatry*, *10*, 91–95.

Audit Commission (2000). *Children in mind: Child and adolescent mental health services*. Oxford: Audit Commission Publications, in preparation.

Bailey, S. (1999). The interface between mental health, criminal justice and forensic mental health services for children and adolescents. *Current Opinion in Psychiatry*, *12*, 425–432.

Bailey, S., Thornton, L., & Weaver, A. B. (1994). The first 100 admissions to an adolescent secure unit. *Journal of Adolescence*, *17*, 207–220.

Bardone, A., Moffitt, T., Caspi, A., Dickson, N., Stanton, W., & Silva, P. (1998). Adult physical health outcomes of adolescent girls with conduct disorder, depression and anxiety. *Journal of the American Academy of Child and Adolescent Psychiatry*, *37*, 594–601.

Bullock, R., Hosie, K., Little, M., & Millham, S. (1990). Secure accommodation for very difficult adolescents: Some recent research findings. *Journal of Adolescence*, *13*, 205–216.

Bullock, R., & Little, M. (1999). The interface between social and health services for children and adolescent persons. *Current Opinion in Psychiatry*, *12*, 421–424.

Callaghan, J., Young, B., Pace, F., & Vostanis, P. (2002). Mental health support for Youth Offending Teams: A qualitative study. Health and Social Care in the Community.

Carrion, V., & Steiner, H. (2000). Trauma and dissociation in delinquent adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry*, *39*, 353–359.

Cauffman, E., Felman, S., Waterman, J., & Steiner, H. (1998). Posttraumatic stress disorder among female juvenile offenders. *Journal of the American Academy of Child and Adolescent Psychiatry*, *37*, 1209–1221.

Corrado, R., Cohen, I., Hart, S., & Roesch, R. (2000). Diagnosing mental disorders in offenders: Conceptual and methodological issues. *Criminal Behaviour and Mental Health*, *10*, 29–39.

Curtis, S. (2001). Youth justice assessment procedures. *Child Psychology and Psychiatry Review*, *6*, 21–24.

Department of Health (1997). *Developing partnerships in mental health.* London: HMSO.

Dimond, C., Misch, P., & Goldberg, D. (2001). On being in a young offender institution: What boys on remand told a child psychiatrist. *Psychiatric Bulletin*, *25*, 342–345.

Dolan, M., Holloway, J., Bailey, S., & Smith, C. (1999). Health status in juvenile offenders: A survey of young offenders appearing before the juvenile courts. *Journal of Adolescence*, *22*, 137–144.

Farrington, D. (1995). The development of offending and antisocial behaviour from childhood. *Journal of Child Psychology and Psychiatry*, *36*, 929–964.

Farrington, D. (1996). *Understanding and preventing youth crime*. York: Joseph Rowntree Foundation.

Fergusson, D., Horwood, J., & Lynskey, M. (1994). The childhood of multiple problem adolescents: A 15-year longitudinal study. *Journal of Child Psychology and Psychiatry*, *35*, 1123–1140.

Gale, F., & Vostanis, P. (in press). Developing the Primary Mental Health Worker role within child and adolescent mental health services. *Clinical Child Psychology and Psychiatry*, in press.

Garralda, M. E., Yates, P., & Higginson, I. (2000). Child and adolescent mental health service use: HoNOSCA as an outcome measure. *British Journal of Psychiatry*, *177*, 52–58.

Gowers, S., Harrington, R., Whitton, A., Lelliott, P., Beevor, A., Wing, J., & Jezzard, R. (1999a). Brief scale for measuring the outcomes of emotional and behavioural disorders in children: Health of the Nation Outcome Scales for children and adolescents (HoNOSCA). *British Journal of Psychiatry*, *174*, 413–416.

Gowers, S., Harrington, R., Whitton, A., Beevor, A., Lelliott, P., Jezzard, R., & Wing, J. (1999b). Health of the Nation Outcome Scales for Children and Adolescents (HoNOSCA): Glossary for HoNOSCA score sheet. *British Journal of Psychiatry*, *174*, 428–431.

Gunn, J., Maden, A., & Swinton, M. (1991). Treatment needs of prisoners with psychiatric disorders. *British Medical Journal*, *303*, 338–341.

Haapasalo, J., & Hamalainen, T. (1996). Childhood family problems and current psychiatric problems among young violent and property offenders. *Journal of the American Academy of Child and Adolescent Psychiatry*, *35*, 1394–1401.

Hagell, A., & Newburn, T. (1996). Family and social contexts of adolescent re-offenders. *Journal of Adolescence*, *19*, 5–18.

Health Advisory Service (1995). *Child and adolescent mental health services: Together we stand*. London: HMSO.

Henggeler, S., Cunningham, P., Pickrel, S., Schoenwald, S., & Brondino, M. (1996). Multisystemic therapy: An effective violence prevention for serious juvenile offenders. *Journal of Adolescence*, *19*, 47–61.

Hoge, R., Andrews, D., & Leschied, A. (1996). An investigation of risk and protective factors in a sample of youthful offenders. *Journal of Child Psychology and Psychiatry*, *37*, 419–424.

Home Office (1999). *The Crime and Disorder Act: Youth Offending Teams*. http://www.homeoffice.gov.uk/cdact/guidyot.htm.

Home Office (2000). *Crime reduction: The government's crime reduction strategy*. London: Crown Copyright.

Ireland, J. L. (2000a). A descriptive analysis of self-harm reports among a sample of incarcerated adolescent males. *Journal of Adolescence*, *23*, 605–613.

Ireland, J. L. (2000b). Bullying among prisoners: A review of research. *Aggression and Violent Behavior*, *5*, 201–215.

Kataoka, S., Zima, B., Dupre, D., Moreno, K., Yang, X., & McCracken, J. (2001). Mental health problems and service use among female juvenile offenders: Their relationship to criminal history. *Journal of the American Academy of Child and Adolescent Psychiatry*, *40*, 549–555.

Kurtz, Z., Thornes, R., & Bailey, S. (1997). *A study of the demand and needs for forensic child and adolescent mental health services in England and Wales*. London: Department of Health.

Kurtz, Z., Thornes, R., & Bailey, S. (1998). Children in the criminal justice and secure care systems: How their mental health needs are met. *Journal of Adolescence*, *21*, 543–553.

Lacey, I. (1999). The role of the Child Primary Mental Health Worker. *Journal of Advanced Nursing*, *30*, 220–228.

Lengua, C., Handy, S., & Dhariwal, S. (1997). Survey of young offenders in a regional secure unit. *Psychiatric Bulletin*, *21*, 535–537.

Mental Health Foundation (1999). *Bright futures: Promoting children and young people's mental health*. London: Mental Health Foundation.

Nicol, R. (1999). The young offender. *Current Opinion in Psychiatry*, *12*, 669–672.

Nicol, R., Stretch, D., Whitney, I., Jones, K., Garfield, P., Turner, K., & Stanion, B. (2000). Mental health needs and services for severely troubled and troubling young people, including young offenders, in an NHS region. *Journal of Adolescence*, *23*, 243–261.

Nieland, M., McCluskie, C., & Tait, E. (2001). Prediction of psychological distress in young offenders. *Legal and Criminological Psychology*, *6*, 29–47.

Papageorgiou, V., & Vostanis, P. (2000). Psychosocial characteristics of Greek young offenders. *Journal of Forensic Psychiatry*, *11*, 390–400.

Paulus, P. B., & McCaine, G. (1983). Crowding in jails. *Basic and Applied Social Psychology*, *4*, 89–107.

Pliszka, S., Sherman, J., Barrow, V., & Irick, S. (2000). Affective disorder in juvenile offenders. *American Journal of Psychiatry*, *157*, 130–132.

Reiss, D., Grubin, D., & Meux, C. (1996). Young 'psychopaths' in special hospital: Treatment and outcome. *British Journal of Psychiatry*, *168*, 99–104.

Roberts, C., Baker, K., Merrington, S., & Jones, S. (2001). *Validity and reliability of asset: Interim report to the Youth Justice Board*. Oxford: Centre for Criminological Research.

Rutter, M., Giller, H., & Hagell, A. (1998). *Antisocial behaviour by young people*. Cambridge: Cambridge University Press.

Sebuliba, D., & Vostanis, P. (2000). Child and adolescent mental health training for primary care staff. *Clinical Child Psychology and Psychiatry*, *6*, 191–204.

Smith, C., & Thornbury, T. P. (1995). The relationship between childhood maltreatment and adolescent involvement in delinquency. *Criminology*, *33*, 451–481.

Teplin, L. A. (1990). Detecting disorder: The treatment of mental illness among jail detainees. *Journal of Consulting and Clinical Psychology*, *58*, 233–236.

Wolpert, M., & Fredman, G. (1996). Child characteristics influencing referral to mental health services. *Child Psychology and Psychiatry Review*, *1*, 98–103.

Youth Justice Board (1998). *Inter-departmental circular on establishing Youth Offending Teams*. London: HMSO.

Zambe, E., & Porporino, F. (1998). Coping, imprisonment, and rehabilitation. *Criminal Justice and Behavior*, *17*, 53–70.